Evolution Wired

PDF export of the original HTML instructions

Contents

1. Preface

PDF export of the original HTML instructions

This PDF document is an automated export of an interactive set of HTML instructions. It may be the case that not all contents and interactive elements are contained in the PDF as they cannot be presented in this format. Furthermore, automatically generated page breaks may cause coherent contents to be moved slightly. We can therefore only guarantee the completeness of the information in the HTML instructions, and recommend that you use these. You can find these in the download section of the website under www.sennheiser.com/download.

2. Product information

All information about the product and available accessories at a glance.

For more information, see:

- You can find information about installing and operating under User manual.
- You can find technical specifications about the individual products under Specifications.
- You can find information about pick-up pattern under Directional characteristics.
- You can find information about applications under Applications.

evolution 600

The evolution 600 series includes instrument microphones with cardioid and supercardioid patterns.

e 602 II

Instrument microphone with cardioid polar pattern

Article no. 500797

Applications

> **i** You can find more detailed information about the e 602 II in the following sections:
>
> - **Startup and operation:** e 602 II
> - **Specifications:** e 602 II

e 604

Instrument microphone with cardioid polar pattern

Article no. 004519

Applications

You can find more detailed information about the e 604 in the following sections:

- **Startup and operation:** e 604
- **Specifications:** e 604

e 608

Instrument microphone with supercardioid pattern

Article no. 004520

Applications

You can find more detailed information about the e 608 in the following sections:

- **Startup and operation:** e 608
- **Specifications:** e 608

e 609 silver

Instrument microphone with supercardioid pattern

Article no. 500074

Applications

You can find more detailed information about the e 609 in the following sections:

- **Startup and operation:** e 609
- **Specifications:** e 609 silver

e 614

Instrument microphone with supercardioid pattern

Article no. 009895

Applications

You can find more detailed information about the e 614 in the following sections:

- **Startup and operation:** e 614
- **Specifications:** e 614

evolution 800

The evolution 800 series includes microphones for speech and singing with cardioid and supercardioid polar patterns.

e 825-S

Instrument and vocal microphone with cardioid pattern

Article no. 004511

Applications

i You can find more detailed information about the e 825-S in the following sections:

- **Startup and operation:** e 825-S
- **Specifications:** e 825-S

e 835 | e 835-S | e 835-S-PTT

Cardioid vocal microphone

Article no. e 835: 004513

Article no. e 835-S: 004514

Article no. e 835-S-PTT: 390020

Applications

You can find more detailed information about the e 835 | e 835-S | e 835-S-PTT in the following sections:

- **Startup and operation:** e 835 | e 835-S | e 835-S-PTT
- **Specifications:** e 835-S

e 845 | e 845-S

Supercardioid vocal microphone

Article no. e 845: 004515

Article no. e 845-S: 004516

Applications

i You can find more detailed information about the e 845 | e 845-S in the following sections:

- **Startup and operation:** e 845 | e 845-S
- **Specifications:** e 845-S

e 865 | e 865-S

Supercardioid vocal microphone

Article no. e 865: 004846

Article no. e 865-S: 004847

Applications

ℹ You can find more detailed information about the e 865 | e 865-S in the following sections:

- **Startup and operation:** e 865 | e 865-S
- **Specifications:** e 865-S

evolution 900

The evolution 600 series includes instrument microphones with cardioid and supercardioid patterns.

e 901

Instrument microphone with cardioid polar pattern

Article no. 500198

Applications

You can find more detailed information about the e 901 in the following sections:

- **Startup and operation:** e 901
- **Specifications:** e 901

e 902

Instrument microphone with cardioid polar pattern

Article no. 500199

Applications

You can find more detailed information about the e 902 in the following sections:

- **Startup and operation:** e 902
- **Specifications:** e 902

e 904

Instrument microphone with cardioid polar pattern

Article no. 500200

Applications

You can find more detailed information about the e 904 in the following sections:

- **Startup and operation:** e 904
- **Specifications:** e 904

e 906

Instrument microphone with cardioid polar pattern

Article no. 500202

Applications

You can find more detailed information about the e 906 in the following sections:

- **Startup and operation:** e 906
- **Specifications:** e 906

e 908

Instrument microphone with cardioid polar pattern

Article no. e 908 B: 500203

Article no. e 908 B ew: 500204

Applications

You can find more detailed information about the e 908 in the following sections:

- **Startup and operation:** e 908
- **Specifications:** e 908

e 914

Instrument microphone with supercardioid pattern

Article no. 500206

Applications

You can find more detailed information about the e 914 in the following sections:

- **Startup and operation:** e 914
- **Specifications:** e 914

e 935

Cardioid vocal microphone

Article no. 009421

Applications

You can find more detailed information about the e 935 in the following sections:

- **Startup and operation:** e 935
- **Specifications:** e 935

e 945

Supercardioid vocal microphone

Article no. 009422

Applications

You can find more detailed information about the e 945 in the following sections:

- **Startup and operation:** e 945
- **Specifications:** e 945

e 965

Vocal microphone with switchable polar pattern (cardioid and supercardioid)

Article no. 500881

Applications

You can find more detailed information about the e 965 in the following sections:

- **Startup and operation:** e 965
- **Specifications:** e 965

Accessories

Various accessory parts are available for the microphones.

MZA 900 P
MZH 604
MZH 908 B
MZH 908 D
MZQ 100
MZQ 800
MZW 64
MZW 4032

MZA 900 P

Phantom power adaptor

MZA 900 P with a lockable 3.5 mm jack socket

Article no. 500226

Compatible with:

- e 908

i You can find more detailed information about the MZA 900 P in the following sections:

  - **Startup and operation:** MZA 900 P
  - **Specifications:** MZA 900 P

MZH 604

Microphone shock mount clamp for a drum rim

Article no. 005299

Compatible with:

- e 604
- e 904

MZH 908 B

Microphone clamp for brass

Article no. 500540

Compatible with:

- e 908 B and e 908 B ew (see e 908)
- e 608

MZH 908 D

Microphone clamp for drums

Article no. 500541

Compatible with:

- e 908 D (see e 908)
- e 608

MZQ 100

Microphone clamp

Article no. 002155

Compatible with:

- e 609 silver
- e 614

MZQ 800

Microphone clamp

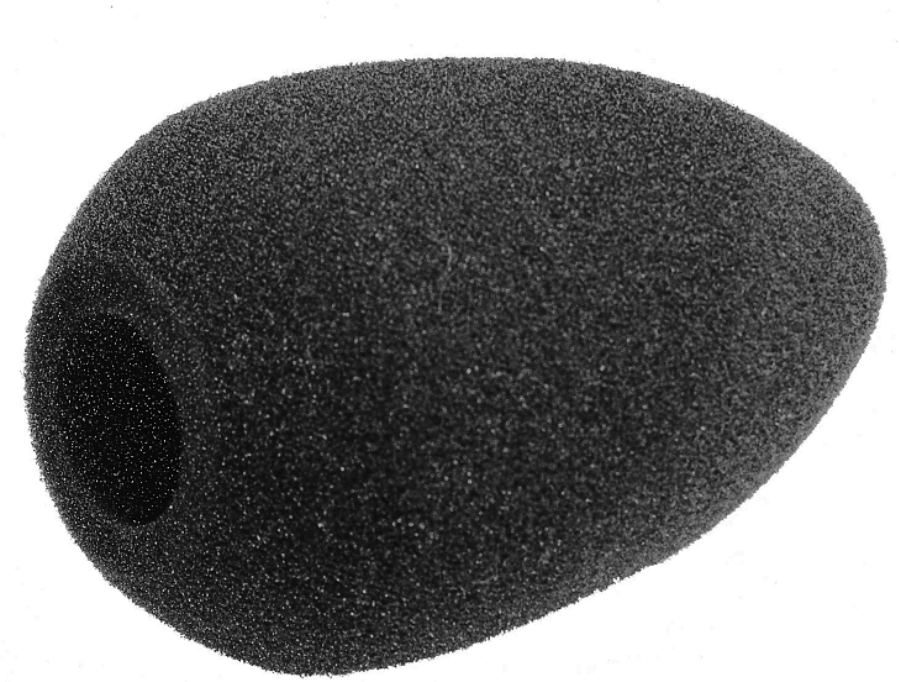
Article no. 004711

Compatible with:

- e 825-S
- e 835 | e 835-S | e 835-S-PTT
- e 845 | e 845-S
- e 865 | e 865-S
- e 935
- e 935
- e 935

MZW 64

Foam windshield



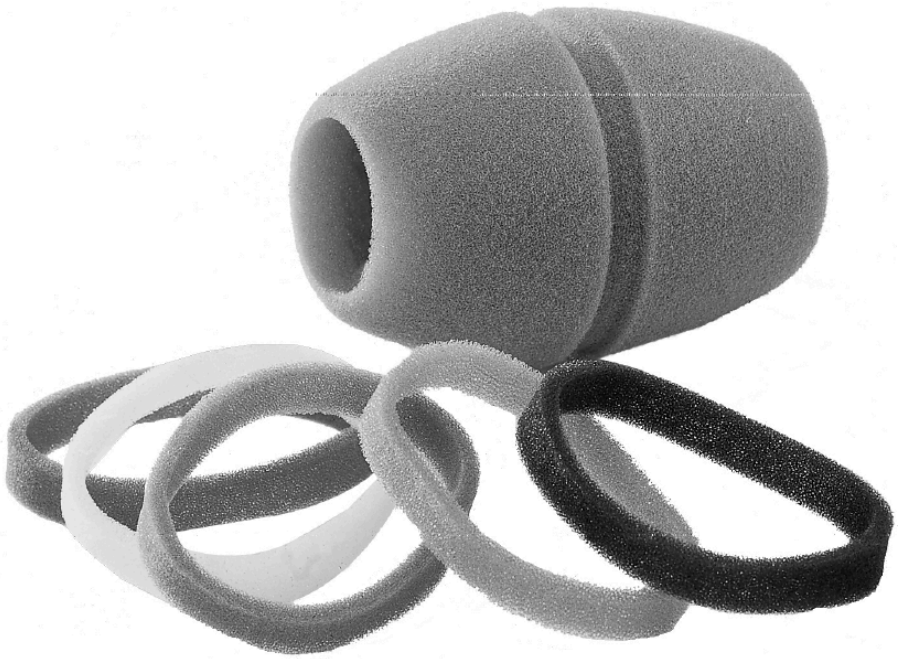
Article no. 003703

Compatible with:

- e 614
- e 914

MZW 4032

Foam windshield



Article no. MZW 4032-A, anthracite: 002978

Article no. MZW 4032-C, black: 002980

Compatible with:

- e 825-S
- e 835 | e 835-S | e 835-S-PTT
- e 845 | e 845-S
- e 865 | e 865-S
- e 935
- e 935
- e 935

Applications

The following sections provide information about different application possibilities of the evolution wired microphones.

Information on the pick-up pattern
Directional characteristics

Matrix of the different application possibilities
Microphone application matrix

List of application fields
Fields of applications

Directional characteristics

Cardioid
Super-cardioid
Switchable pick-up pattern

Cardioid

Cardioid microphones

- e 602 II
- e 604

- e 825-S
- e 835 | e 835-S | e 835-S-PTT

- e 901
- e 902
- e 904
- e 906
- e 908
- e 914
- e 935
- e 965 (see Switchable pick-up pattern)

Super-cardioid

Super-cardioid microphones

- e 608
- e 609 silver
- e 614

- e 845 | e 845-S
- e 865 | e 865-S

- e 945
- e 965 (see Switchable pick-up pattern)

Switchable pick-up pattern

Microphone with switchable pick-up pattern

- e 965

The e 965 offers the possibility to switch between a cardioid and a supercardioid pick-up pattern.

Microphone application matrix

● Main application

● Suitable application

e 602 II					●		●		●	●		●				●			●	
e 604					●								●	●	●	●			●	
e 608					●								●	●		●				●
e 609 silver								●					●	●	●	●				●
e 614			●	●		●	●				●					●	●			●
e 835	●	●																	●	
e 845	●	●																		●
e 865	●	●																		●
e 901											●	●							●	
e 902									●	●		●				●			●	
e 904					●								●	●	●	●			●	
e 906								●					●	●	●	●			●	
e 908					●								●	●	●	●			●	
e 914			●	●			●	●			●					●	●		●	
e 935	●																		●	
e 945	●																			●
e 965	●	●				●													●	●

Fields of applications

In the following sections you will find lists of evolution wired microphones with regard to different fields of application.

Singing

- e 835 | e 835-S | e 835-S-PTT
- e 845 | e 845-S
- e 865 | e 865-S
- e 935
- e 945
- e 965

Speech

- e 835 | e 835-S | e 835-S-PTT
- e 845 | e 845-S
- e 865 | e 865-S

Choir

- e 614
- e 845 | e 845-S
- e 914

Orchestra

- e 614
- e 914

Brass/Woodwind

- e 602 II
- e 604
- e 608
- e 902
- e 904
- e 908

Acoustic guitar

- e 614
- e 914

Acoustic bass

- e 602 II
- e 614
- e 914

Guitar amplifier

- e 609 silver
- e 906

Bass amplifier

- e 602 II
- e 902

Brass (bass)

- e 602 II
- e 902

Piano/Grand piano

- e 614
- e 901
- e 914

Kick drum

- e 901
- e 902

Snare drum

- e 604
- e 608
- e 609 silver
- e 904
- e 906
- e 908

Tom-tom

- e 604
- e 608
- e 609 silver
- e 904
- e 906
- e 908

Floor tom

- e 602 II
- e 604
- e 609 silver
- e 902
- e 904
- e 906
- e 908

Percussion

- e 604
- e 608
- e 609 silver
- e 614
- e 904
- e 906
- e 908
- e 914

Overhead

- e 614
- e 914

3. User manual

Starting up and operating devices of the evolution wired series.

evolution 600
e 602 II
e 604
e 608
e 609
e 614

evolution 800
e 825-S
e 835 | e 835-S | e 835-S-PTT
e 845 | e 845-S
e 865 | e 865-S

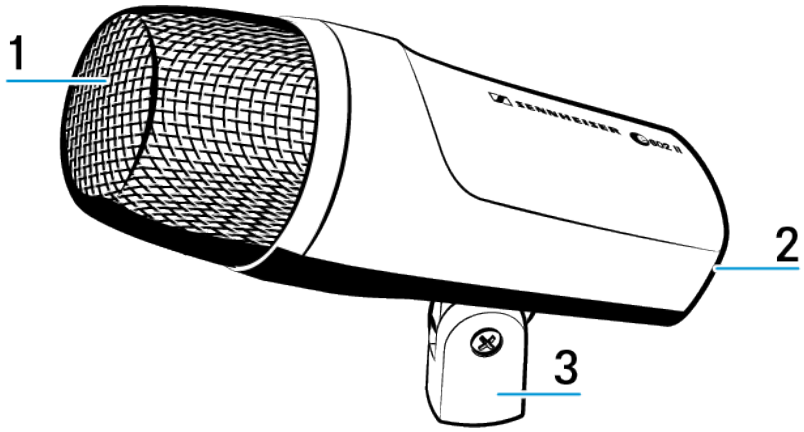
evolution 900
e 901
e 902
e 904
e 906
e 908
e 914
e 935
e 945
e 965

MZA 900 P
Cleaning and maintenance

e 602 II

Related information
Product overview
Installation
Operation

Product overview



1 Sound inlet basket

2 XLR-3 connector

- see Connecting the microphone

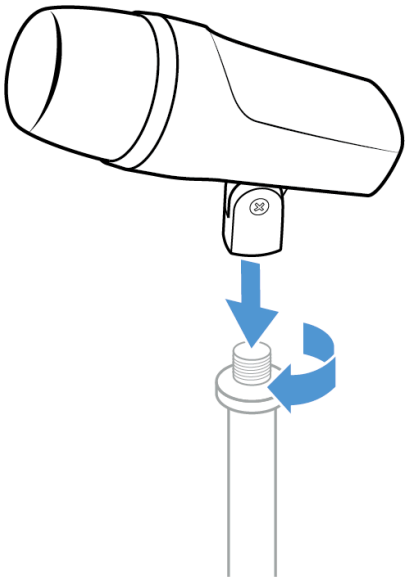
3 Integral stand mount

- see Attaching the microphone

Installation

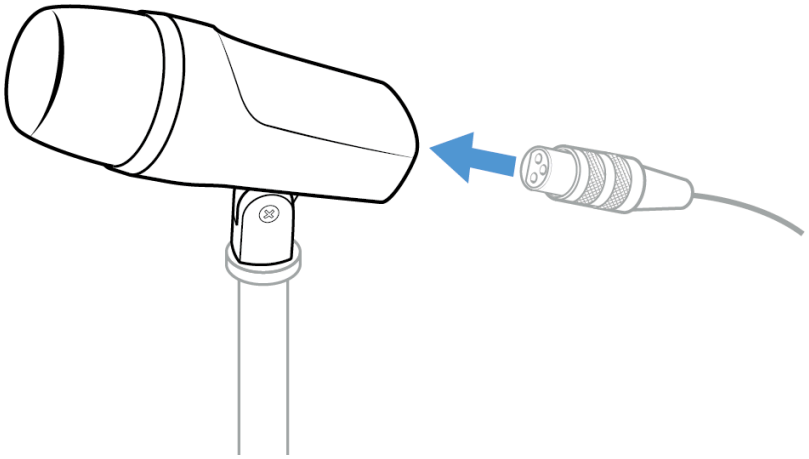
Attaching the microphone

- Screw the microphone's built-in mount onto a sufficiently stable microphone stand.



Connecting the microphone

- Connect the XLR-3 socket of the microphone cable (optional accessories) to the XLR-3 socket of the microphone.

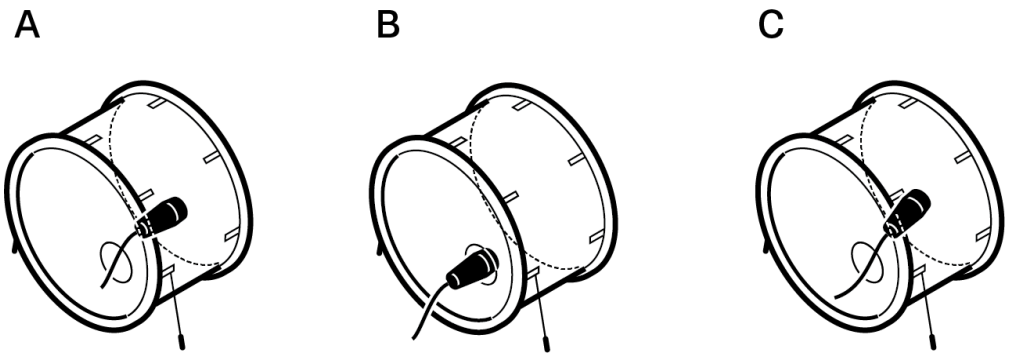


Operation

Positioning the microphone on a kick drum

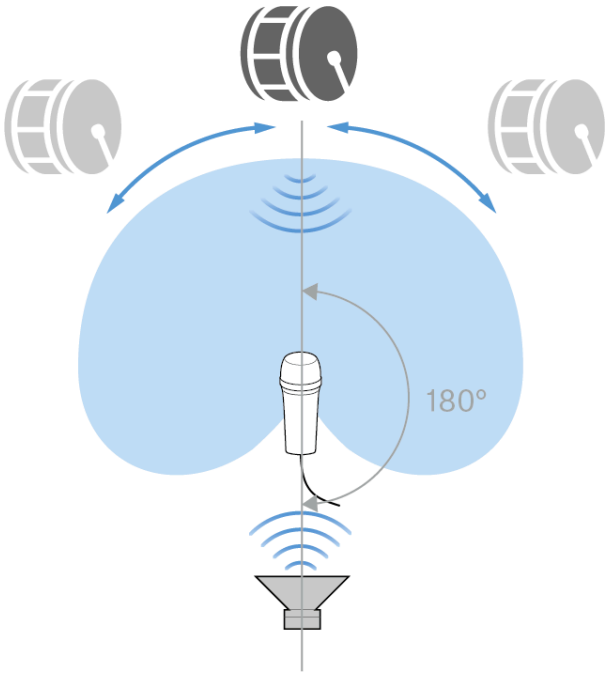
- It is vital to observe the following notes:
  - Position A: Position the microphone at a distance of a few centimeters from the batter head.
    - Resulting sound: much attack, little resonance, dry
  - Position B: Position the microphone at the level of the resonant head.
    - Resulting sound: less attack, much resonance, smooth and voluminous
  - Position C: Position the microphone in the middle between the batter head and the resonant head.
    - Resulting sound: less Attack

> **i** For less attack in all three positions, turn the microphone away from where the beater strikes.



Positioning the monitor loudspeakers

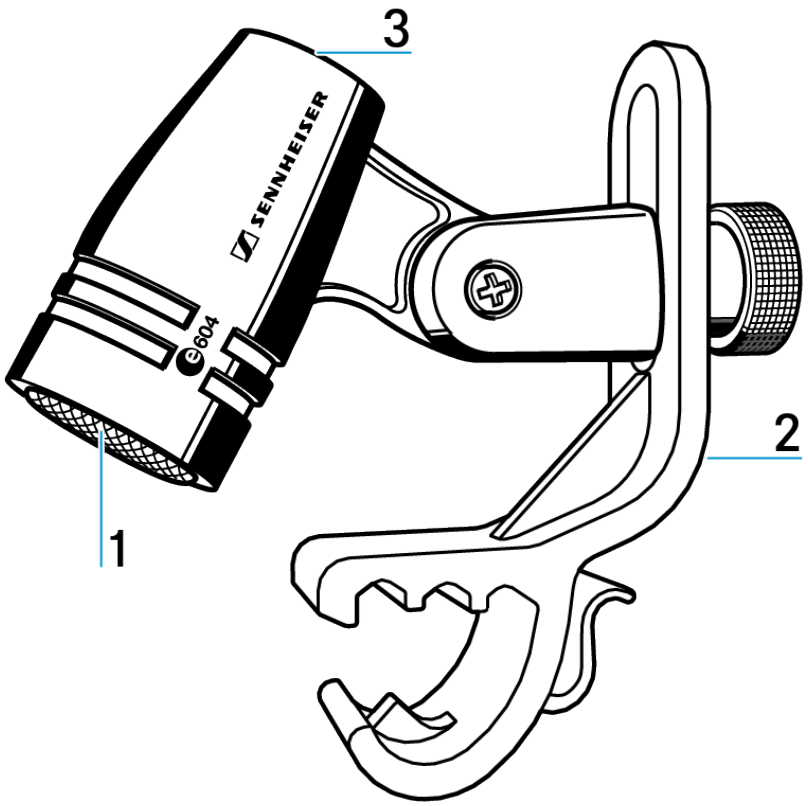
- To prevent feedback and crosstalk, postion your monitor loudspeakers in the angle area of the highest cancellation of the microphone (approx. 180°).



e 604

Related information
Product overview
Installation
Operation

Product overview



1 Sound inlet basket

2 Integral stand mount

- see Attaching the microphone

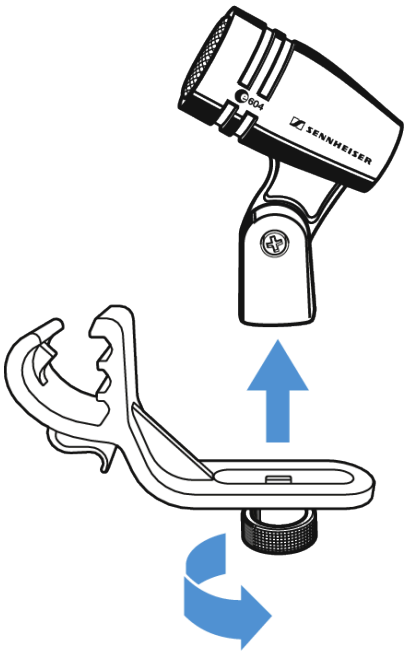
3 XLR-3 connector

- see Connecting the microphone

Installation

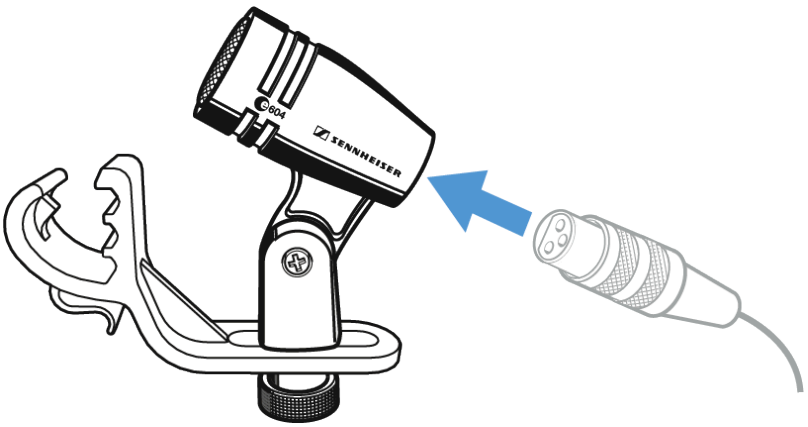
Attaching the microphone

- Fasten the holder to the microphone using the screw.



Connecting the microphone

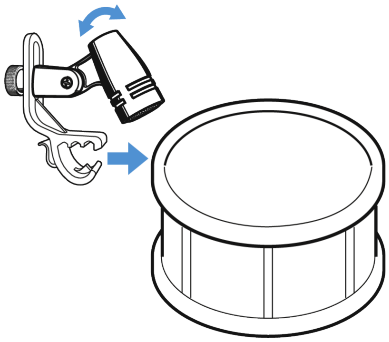
- Connect the XLR-3 socket of the microphone cable (optional accessories) to the XLR-3 socket of the microphone.

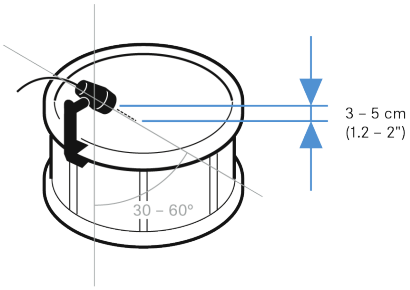


Operation

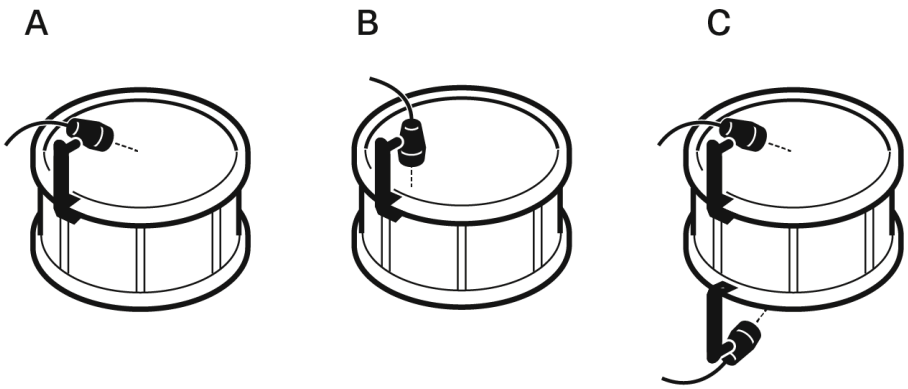
Positioning the microphone on a kick drum

- Use the microphone clamp to attach the MZH 604 to the rim of the drum.
- Position the microphone on the drum so that it is 3 to 5 cm above the drumhead.



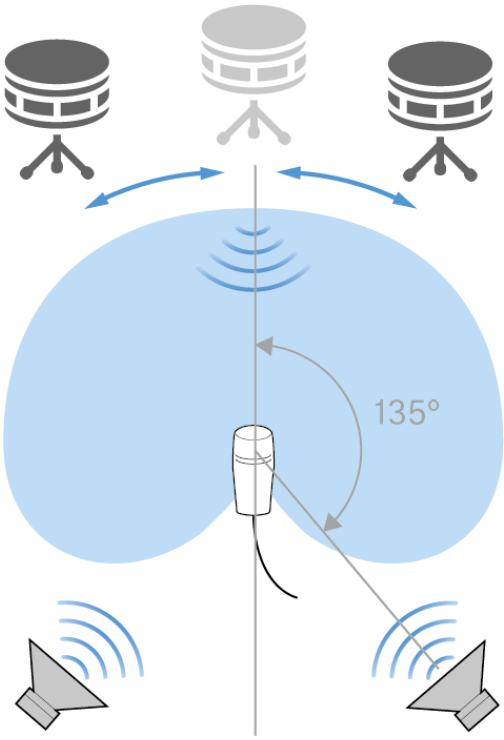


- It is vital to observe the following notes:
  The fundamental to overtones ratio can be adjusted by changing the angle of the microphone. The most balanced results are obtained at an angle of 30 to 60°.
  - Resulting sound Position A: More fundamental, little overtones
  - Resulting sound Position B: Less fundamental, many overtones
- Use of a second e 604 for picking up the bottom of the drumskin and the snares. (Position C).
  The lower microphone must be phase-reversed to avoid phase-cancellation effects due to the second microphone being on the other side of the drumskin.



Positioning the monitor loudspeakers

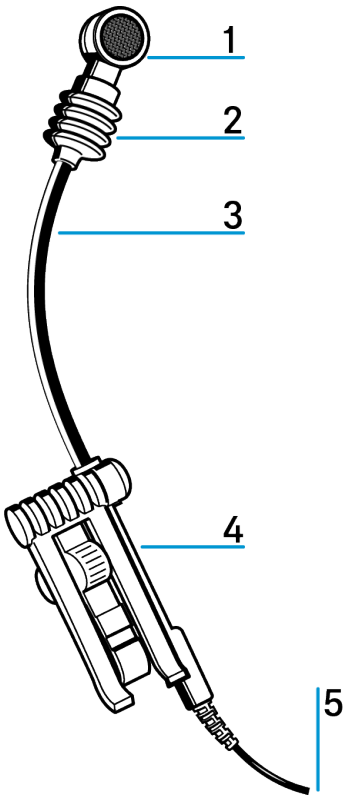
- To prevent feedback and crosstalk, postion your monitor loudspeakers in the angle area of the highest cancellation of the microphone (approx. 135°).



e 608

Related information
Product overview
Installation
Operation

Product overview



1 Microphone head

2 Elastic suspension

3 Gooseneck

- see Attaching the microphone

4 Microphone clamp

- see Using accessories

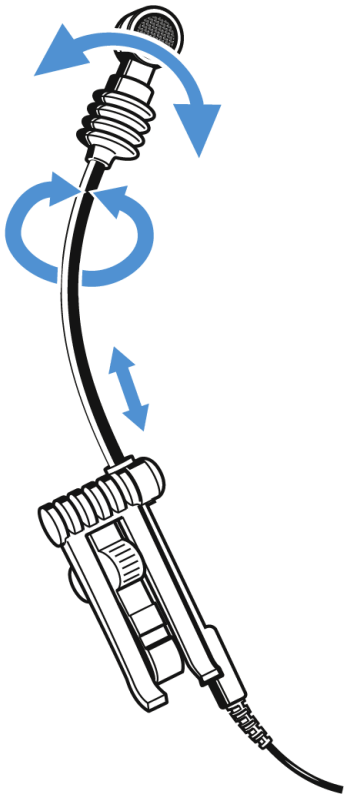
5 XLR-3 socket

- see Connecting the microphone

Installation

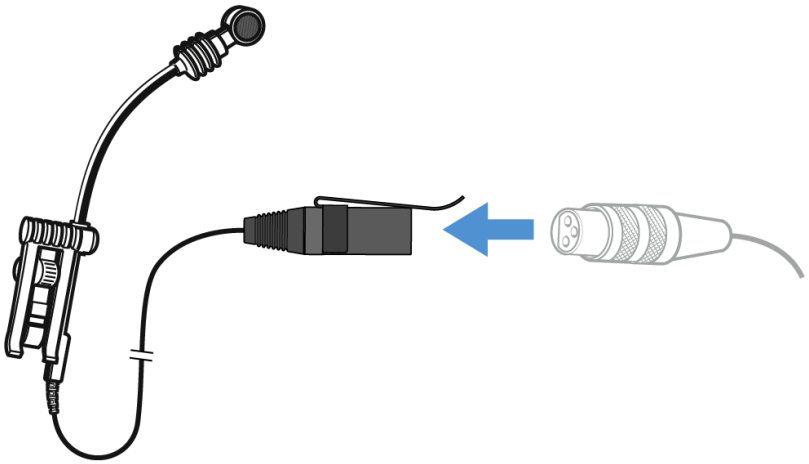
Attaching the microphone

- Carefully bend the flexible goose neck.



Connecting the microphone

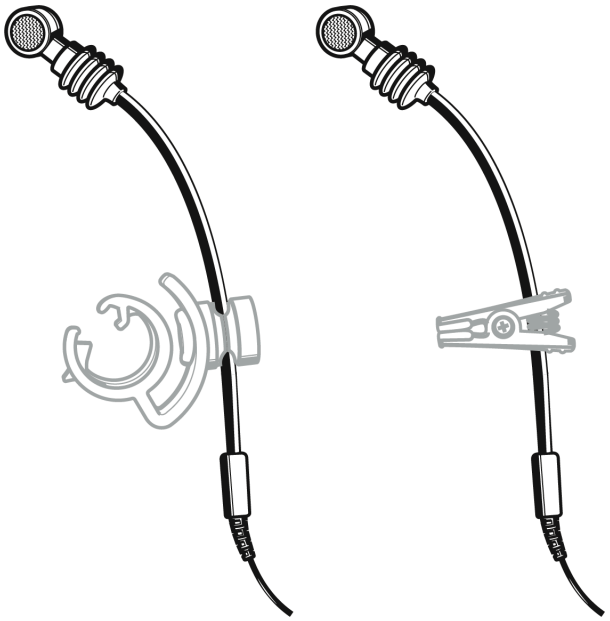
- Connect the XLR-3 socket of the microphone cable (optional accessories) to the XLR-3 socket of the microphone.



Using accessories

> **i** The MZH 908 D (left image) and MZH 908 B (right image) clips are available as optional accessories for the e 608.

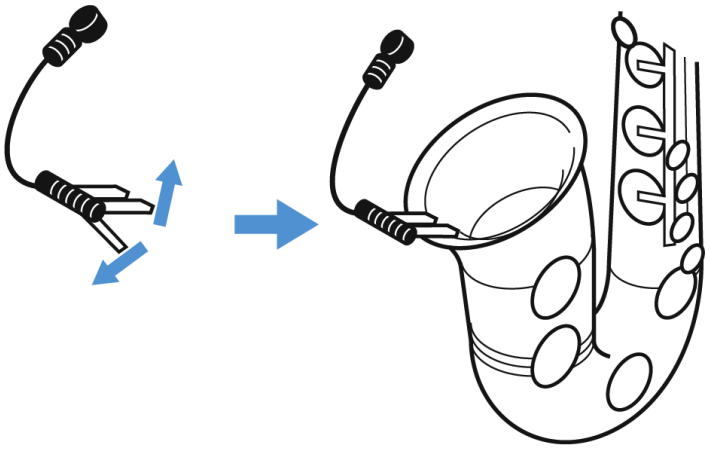
- Remove the attached clip from the goose neck.
- Unscrew the screw on the clip.
- Press the clip firmly onto the goose neck.
- Tighten the screw on the clip.



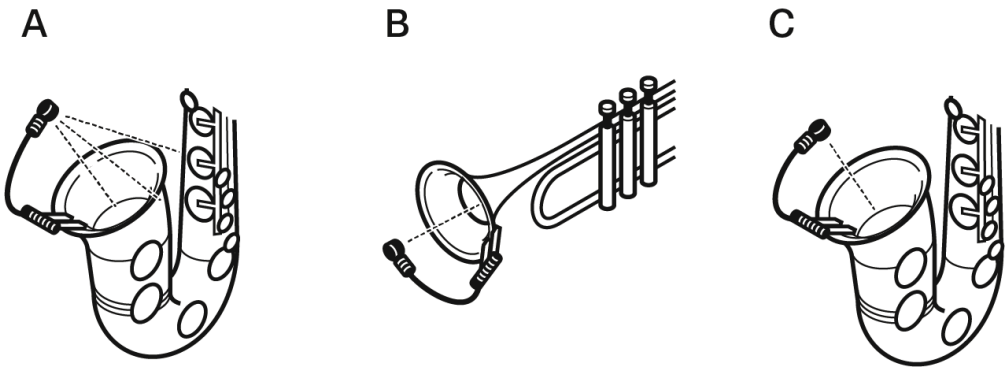
Operation

Positioning the microphone on a wind instrument

- Use the microphone clamp to attach the e 608 to the bell of the instrument.

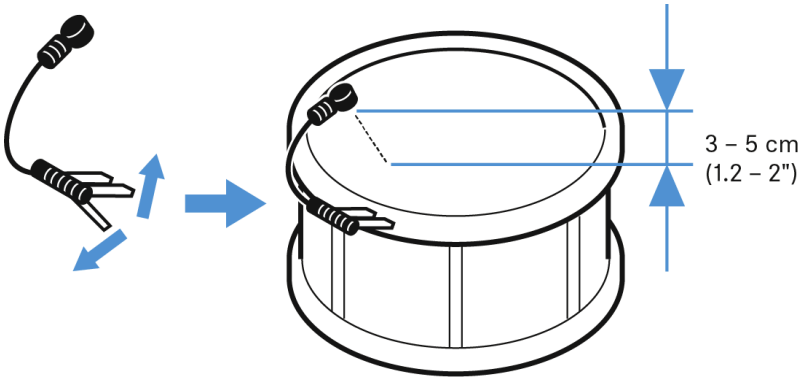


- It is vital to observe the following notes:
  Position A and B: Use the supplied clamp to attach the microphone to the bell of the instrument.
  - Resulting sound Position A: reduced ambient noise
  - Resulting sound Position B: clear, powerful sound
- Position C: For a Saxophone, the microphone should normally be directed partly towards the bell and partly towards the body of the instument.
  - Resulting sound: Balanced, natural sound



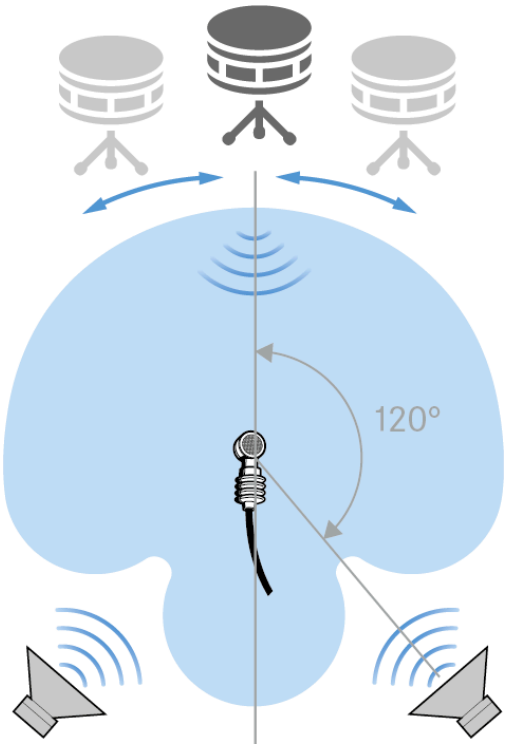
Positioning the microphone on a drum

- Attach the drum clamp to the rim of the drum.
- Position the microphone on the drum so that it is 3 to 5 cm above the drumhead.



Positioning the monitor loudspeakers

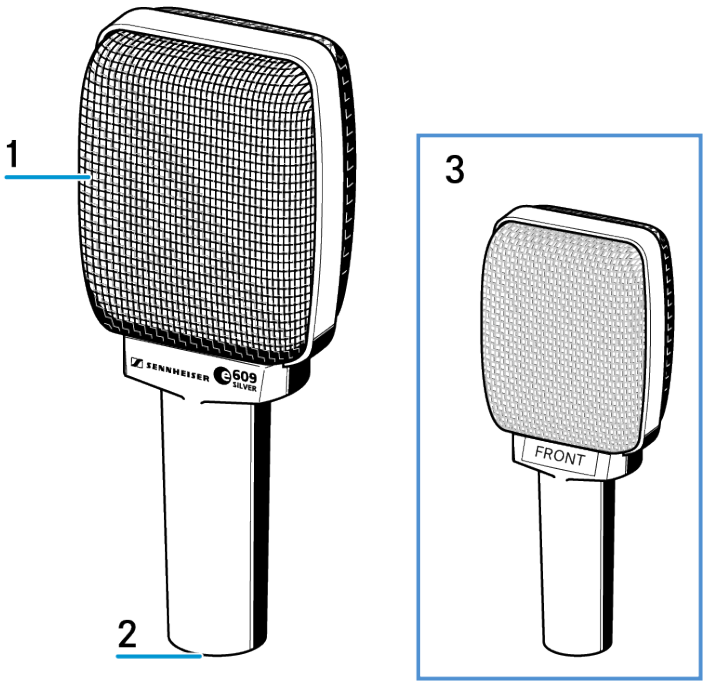
- To prevent feedback and crosstalk, postion your monitor loudspeakers in the angle area of the highest cancellation of the microphone (approx. 120°, see Polar pattern).



e 609

Related information
Product overview
Installation
Operation

Product overview



1 Sound inlet basket

2 XLR-3 connector

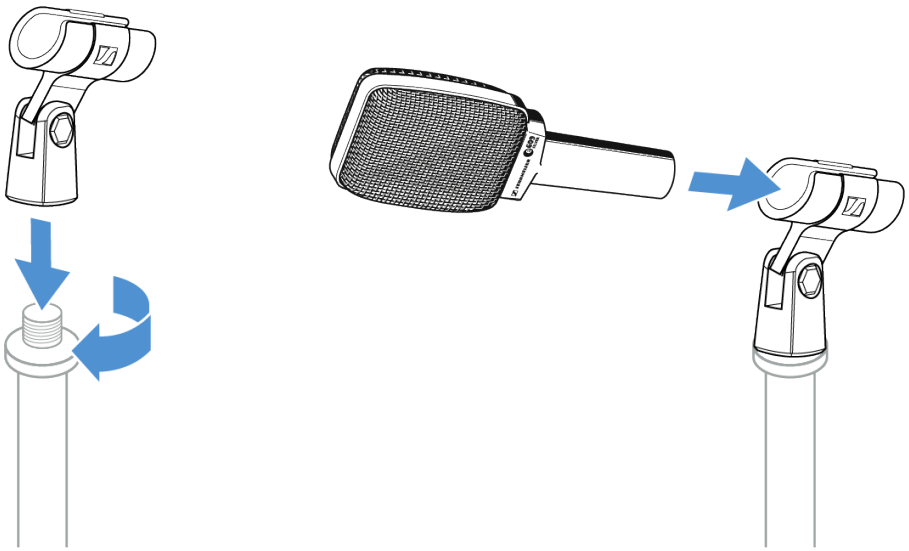
- see Connecting the microphone

3 Front

Installation

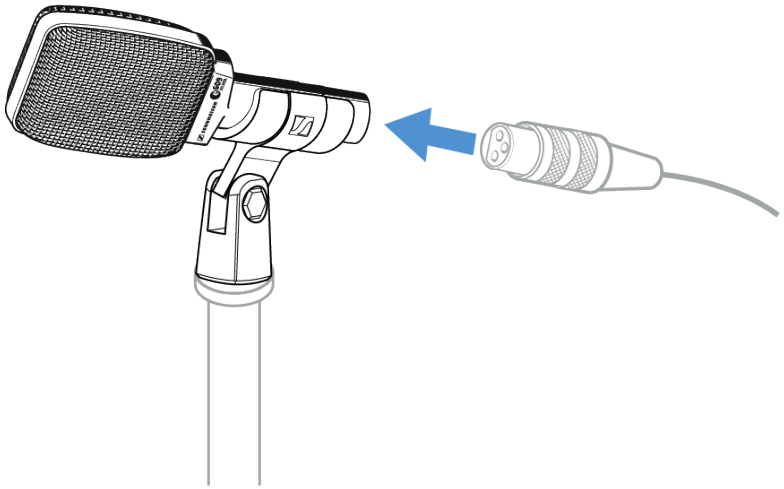
Attaching the microphone

- Screw the microphone clamp to a stand.
- Place the microphone with its back end into the microphone clamp.
- Orient the microphone together with the microphone clamp.



Connecting the microphone

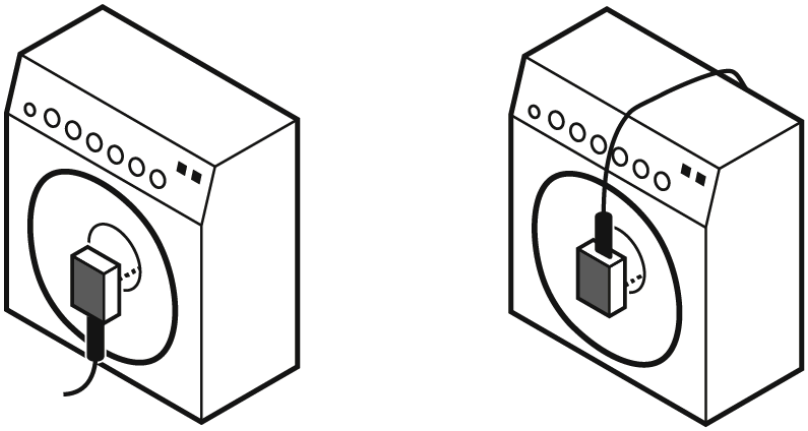
- Connect the XLR-3 socket of the microphone cable (optional accessories) to the XLR-3 socket of the microphone.



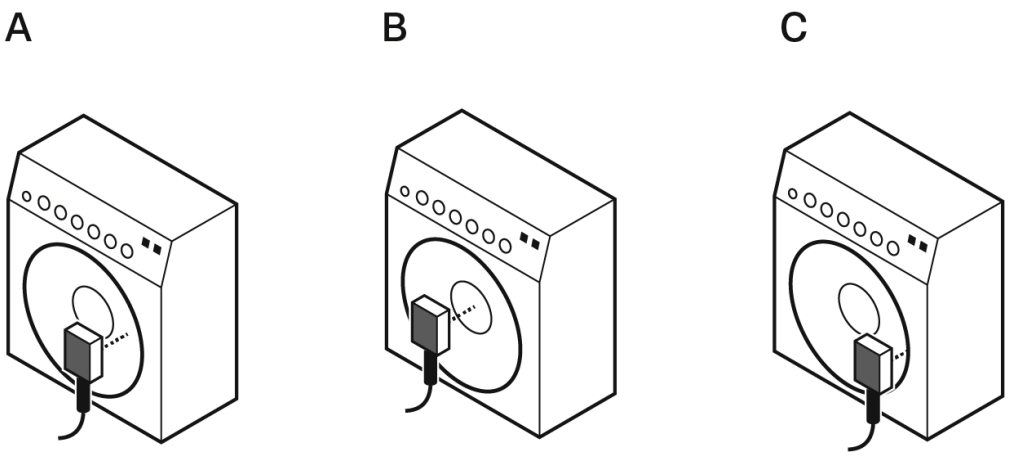
Operation

Positioning the microphone

- Position the microphone between the dust cap and surround.
- The front must face the loudspeaker.

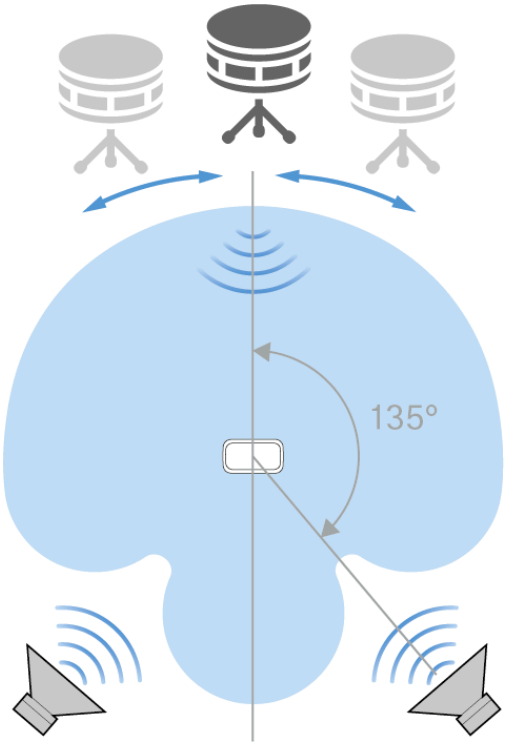


- It is vital to observe the following notes:
  - Position A: Microphone directed towards the dome of the loudspeaker.
    - Resulting sound: many trebles, aggressive sound
  - Position B: Microphone directed towards the middle between dome and edge of the loudspeaker. If necessary, turn the microphone by approx. 30° towards the edge.
    - less trebles, more lower mids, smoother sound
    - balanced, natural sound
  - Position C: Microphone directed towards the edge of the loudspeaker.
    - Resulting sound: less trebles, more lower mids, smoother sound



Positioning the monitor loudspeakers

- To prevent feedback and crosstalk, postion your monitor loudspeakers in the angle area of the highest cancellation of the microphone (approx. 135°, see Polar pattern).



e 614

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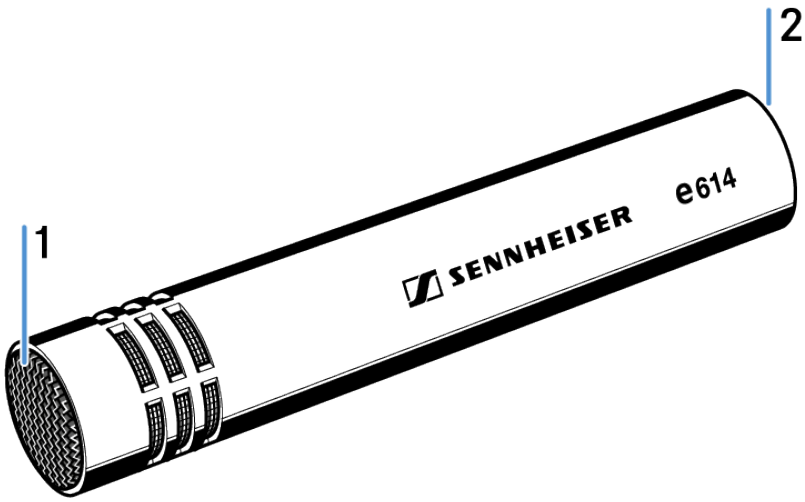


1 Sound inlet basket

- see Using the windshield

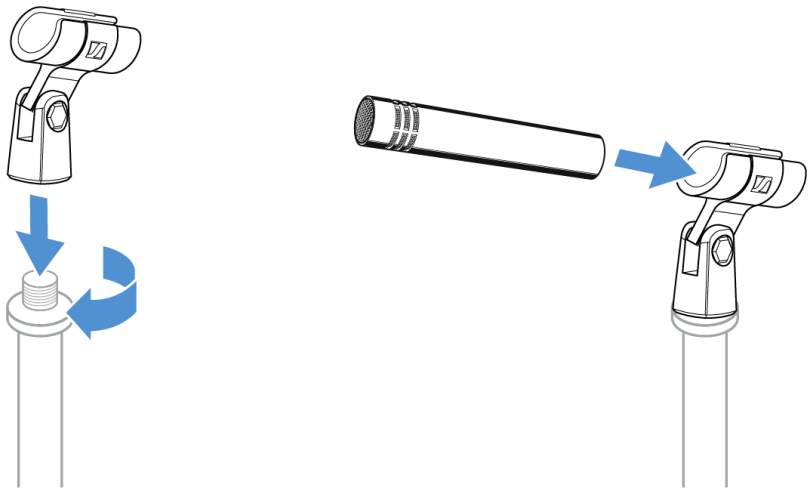
2 XLR-3 connector

- see Connecting the microphone

Installation

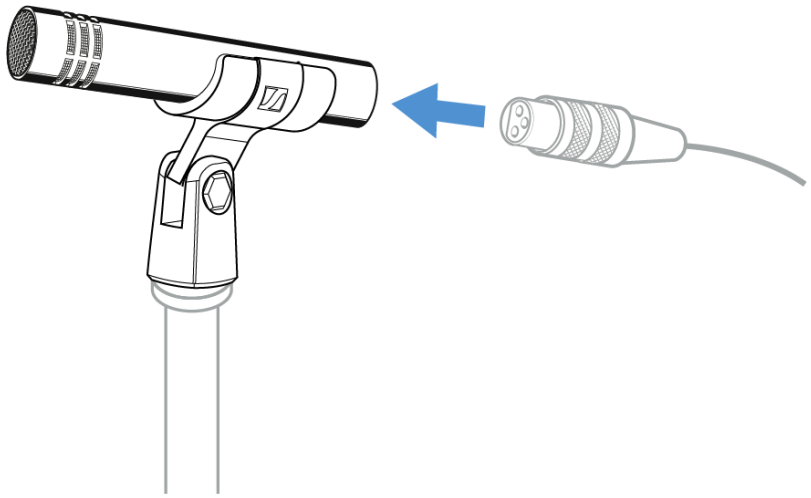
Attaching the microphone

- Screw the microphone clamp to a stand.
- Place the microphone with its back end into the microphone clamp.
- Orient the microphone together with the microphone clamp.



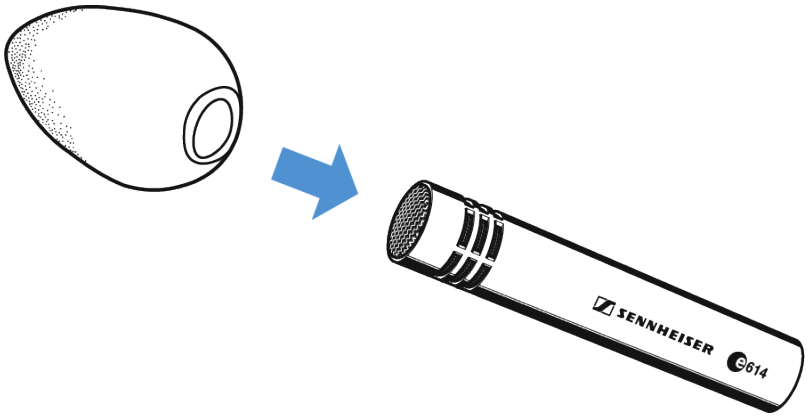
Connecting the microphone

- Connect the XLR-3 socket of the microphone cable (optional accessories) to the XLR-3 socket of the microphone.



Using the windshield

- Place the MZW 64 (optional accessories) windshield over the microphone head.



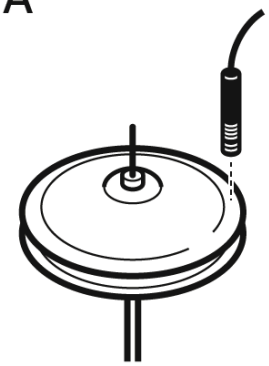
Operation

Positioning the microphone: Drums / Percussions

> **i** Attention: When closing the hi-hat, a strong air current is created on the edge. If the microphone is positioned too close to the edge, interfering noise due to the air current can occur.

- It is vital to observe the following notes:
- Position the microphone a few centimetres above the outer edge of the hi-hat aiming down.
- If necessary, remove unwanted low-frequency signal portions by high pass filtering.
  - Position A: natural, clear sound
  - Position B: more fundamental, little overtones

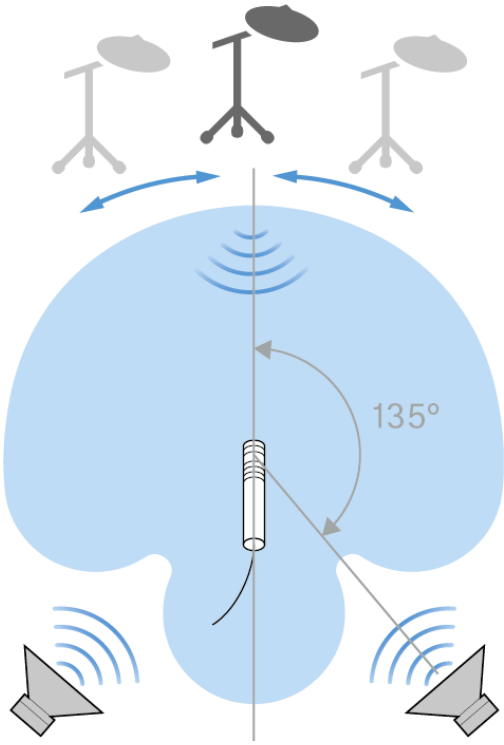
A



B

Positioning the monitor loudspeakers

- To prevent feedback and crosstalk, postion your monitor loudspeakers in the angle area of the highest cancellation of the microphone (approx. 135°, see Polar pattern).



e 825-S

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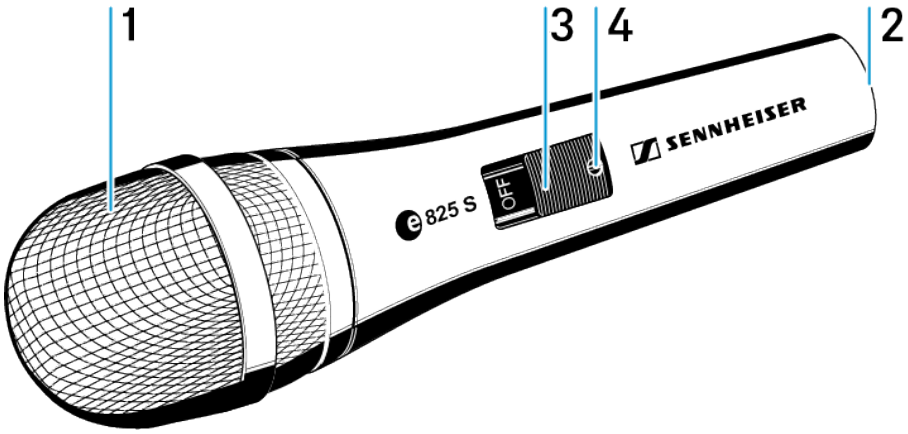


1 Sound inlet basket

- see Using the windshield

2 XLR-3 connector

- see Connecting the microphone

3 **ON/OFF** switch

- see Switching the microphone on/off

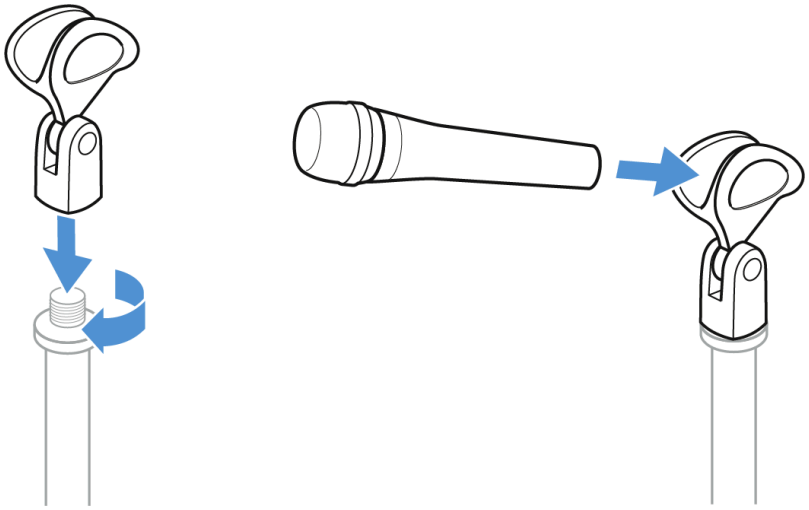
4 Screw

- see Switching the microphone on/off

Installation

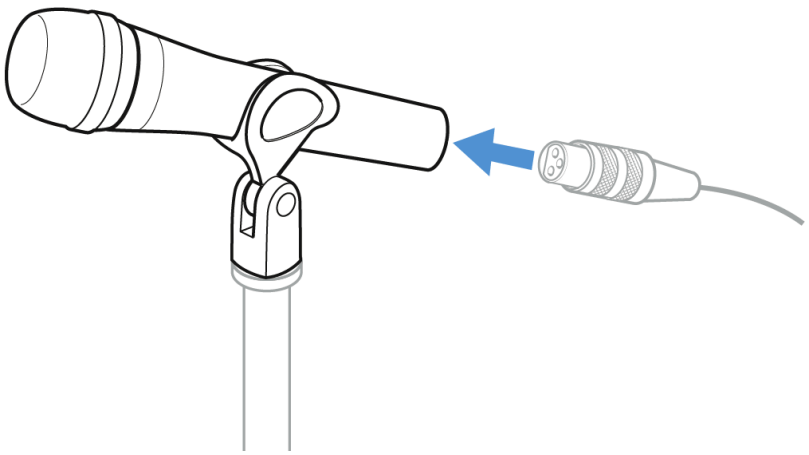
Attaching the microphone

- Screw the microphone clamp to a stand.
- Place the microphone with its back end into the microphone clamp.
- Orient the microphone together with the microphone clamp.



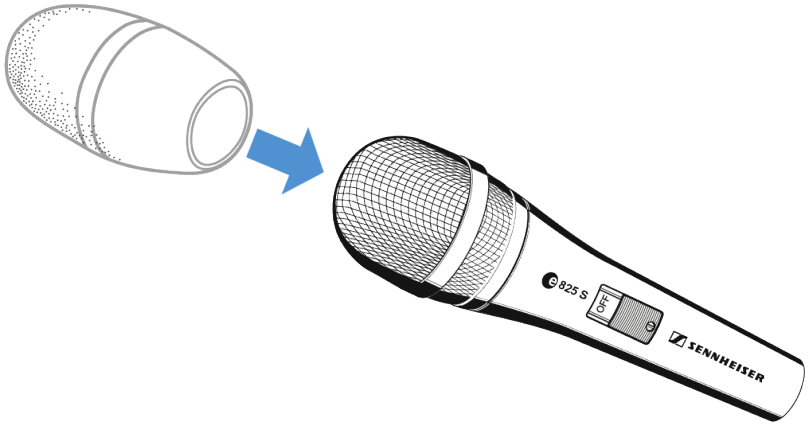
Connecting the microphone

- Connect the XLR-3 socket of the microphone cable (optional accessories) to the XLR-3 socket of the microphone.



Using the windshield

- Place the MZW 4032 (optional accessories) windshield over the microphone head.

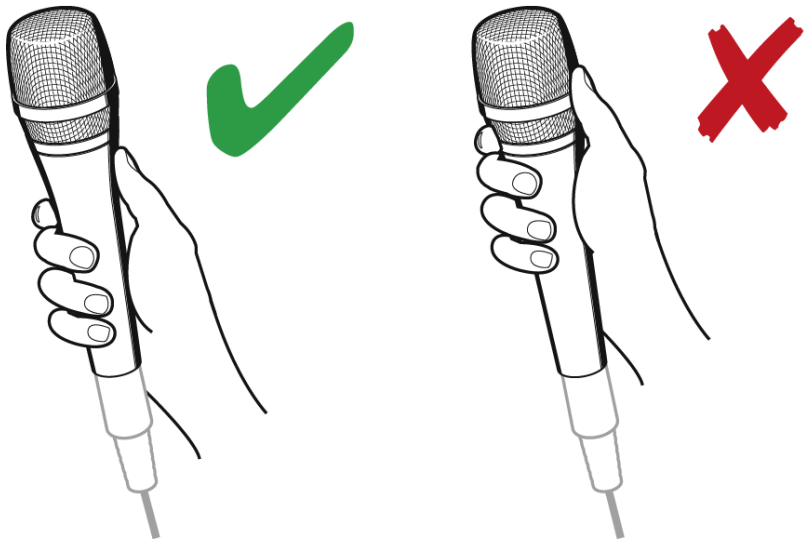


Operation

Holding the microphone

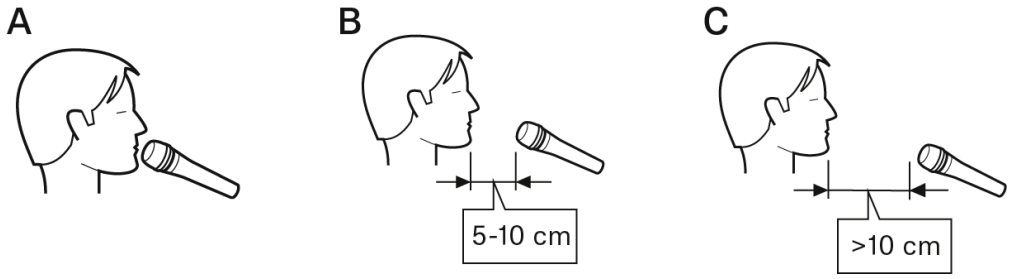
> **i** If you cover the microphone head during transmission, this will change the pick-up pattern of the microphone and consequently the sound.

- Only hold the microphone by its body.



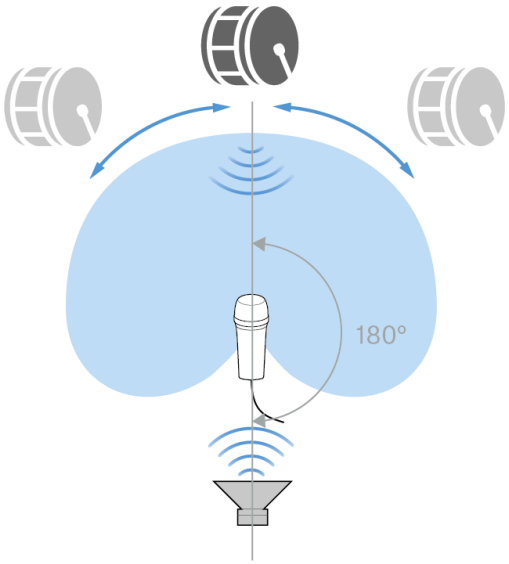
Positioning the microphone

- It is vital to observe the following notes:
  - Position A: Very little crosstalk from other sound sources.
    - Resulting sound: High proximity effect (large bass boost), powerful, direct sound
  - Position B: More crosstalk from other sound sources.
    - Resulting sound: Less proximity effect (less bass boost), some room ambience, natural, balanced sound
  - Position C: Higher crosstalk from other sound sources.
    - Resulting sound: Very little proximity effect (minimal bass boost), more room ambience, indirect sound
- If sibilance occurs: Position the microphone slightly to the side and not directly in front of the mouth.



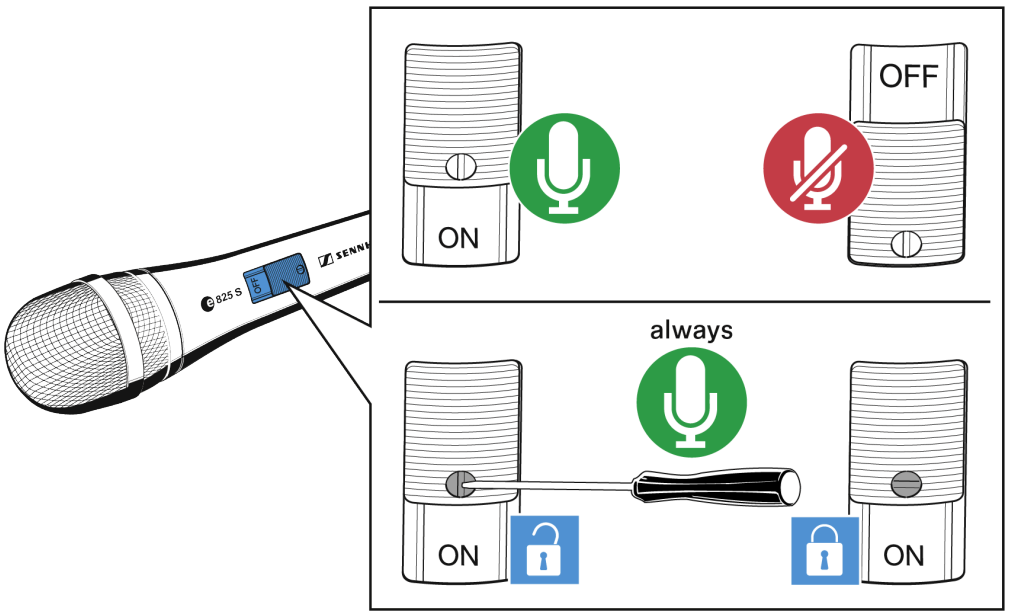
Positioning the monitor loudspeakers

- To prevent feedback and crosstalk, postion your monitor loudspeakers in the angle area of the highest cancellation of the microphone (approx. 180°).



Switching the microphone on/off

- Use the **ON/OFF** switch.
- If necessary, use the screw to lock the **ON/OFF** switch in the „on“ position.



e 835 | e 835-S | e 835-S-PTT

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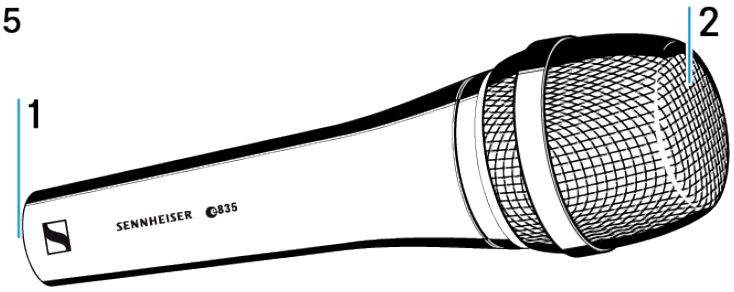
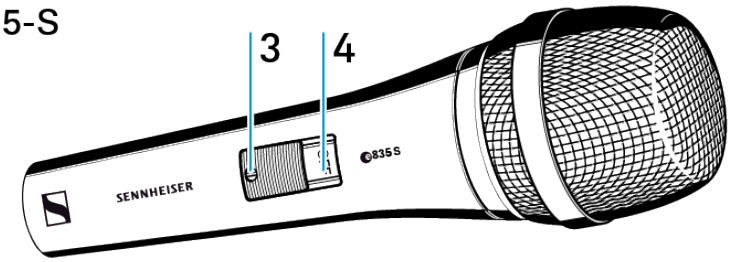
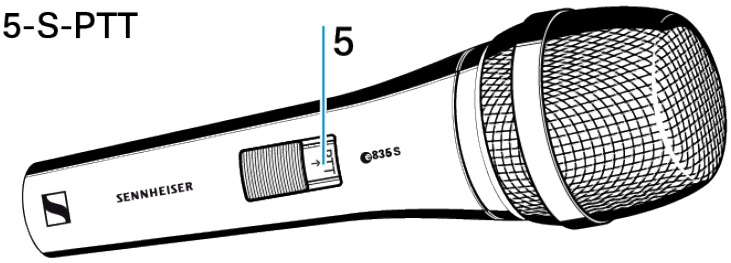
e 835



e 835-S



e 835-S-PTT



1 XLR-3 connector

- see Connecting the microphone

2 Sound inlet basket
- see Using the windshield

3 Screw (only e 835-S)
- see Switching the microphone on/off

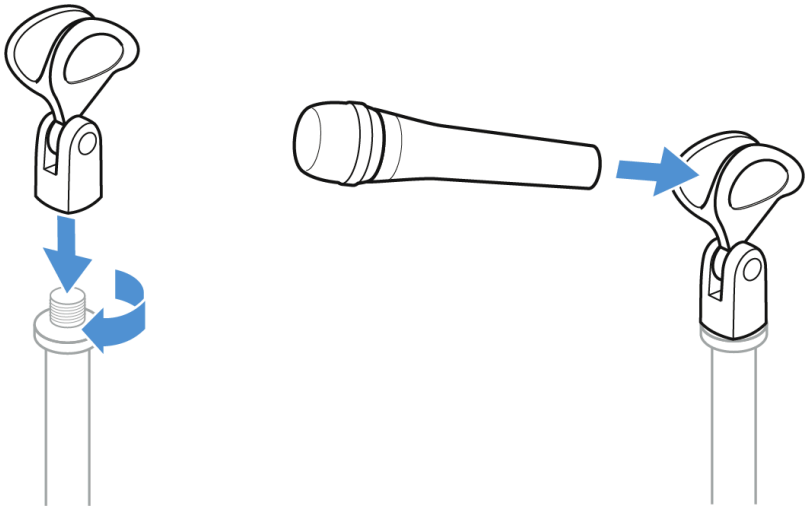
4 **ON/OFF** switch (only e 835-S)
- see Switching the microphone on/off

5 **PTT** (push-to-talk) switch (only e 835-S-PTT)
- see Using the push-to-talk function (only E 835-S-PTT)

Installation

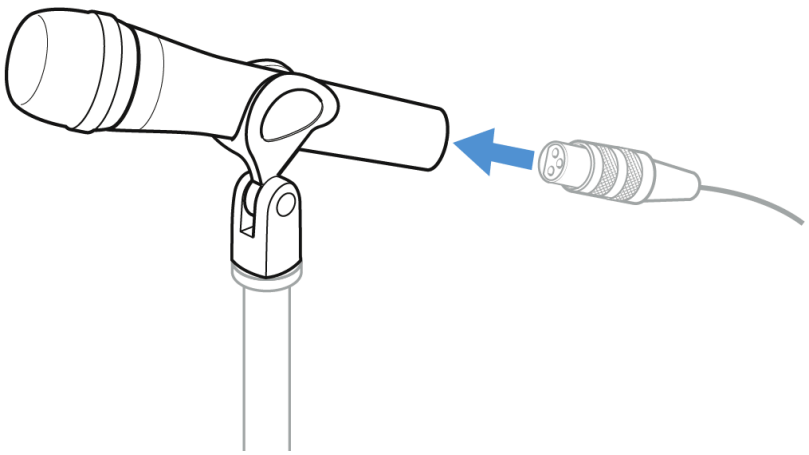
Attaching the microphone

- Screw the microphone clamp to a stand.
- Place the microphone with its back end into the microphone clamp.
- Orient the microphone together with the microphone clamp.



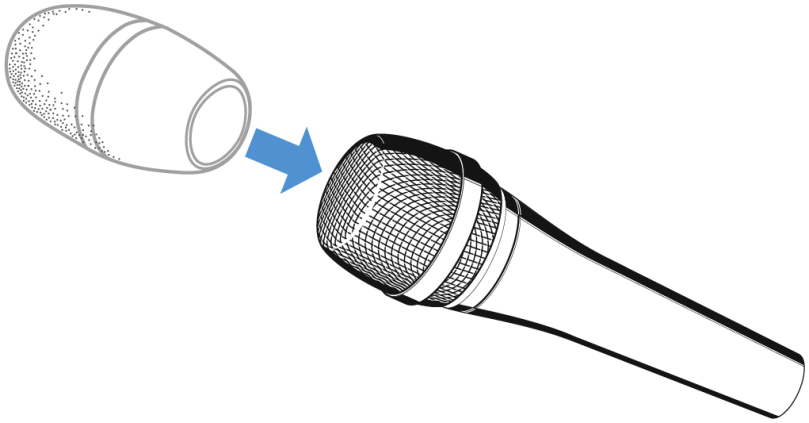
Connecting the microphone

- Connect the XLR-3 socket of the microphone cable (optional accessories) to the XLR-3 socket of the microphone.



Using the windshield

- Place the MZW 4032 (optional accessories) windshield over the microphone head.

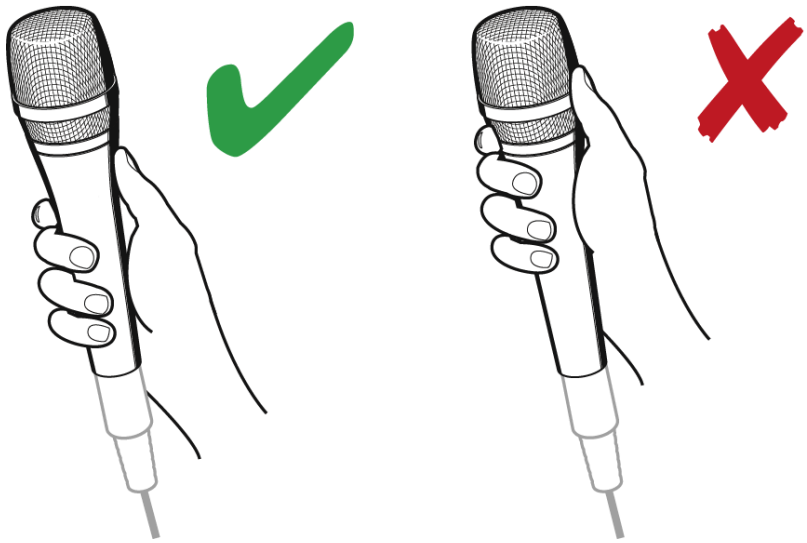


Operation

Holding the microphone

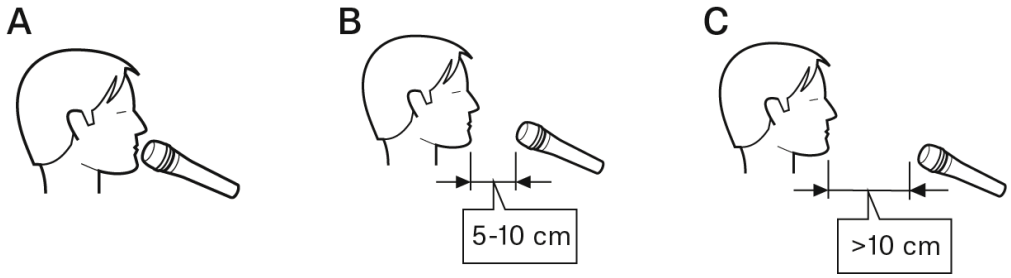
> **i** If you cover the microphone head during transmission, this will change the pick-up pattern of the microphone and consequently the sound.

- Only hold the microphone by its body.



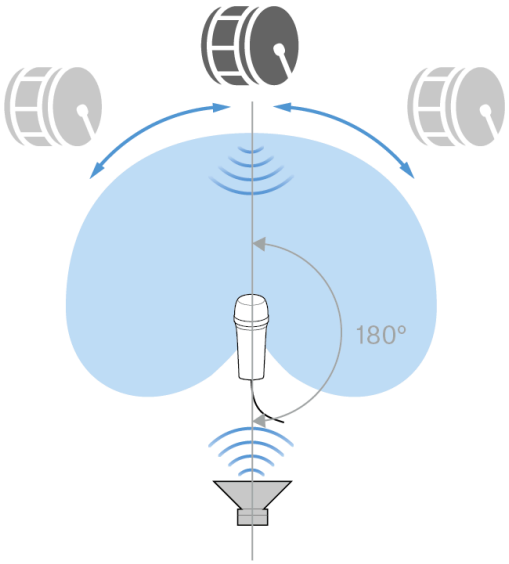
Positioning the microphone

- It is vital to observe the following notes:
  - Position A: Very little crosstalk from other sound sources.
    - Resulting sound: High proximity effect (large bass boost), powerful, direct sound
  - Position B: More crosstalk from other sound sources.
    - Resulting sound: Less proximity effect (less bass boost), some room ambience, natural, balanced sound
  - Position C: Higher crosstalk from other sound sources.
    - Resulting sound: Very little proximity effect (minimal bass boost), more room ambience, indirect sound
- If sibilance occurs: Position the microphone slightly to the side and not directly in front of the mouth.



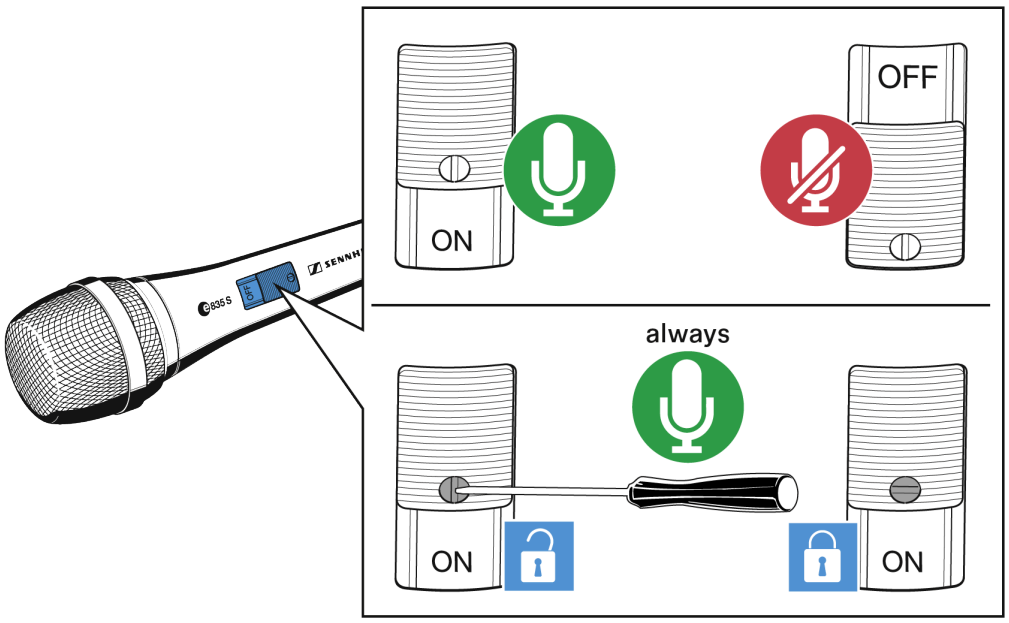
Positioning the monitor loudspeakers

- To prevent feedback and crosstalk, postion your monitor loudspeakers in the angle area of the highest cancellation of the microphone (approx. 180°).



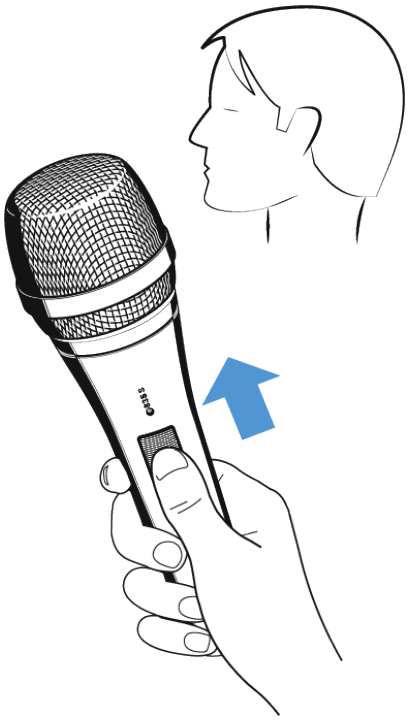
Switching the microphone on/off

- Use the **ON/OFF** switch.
- If necessary, use the screw to lock the **ON/OFF** switch in the „on“ position.



Using the push-to-talk function (only E 835-S-PTT)

- Push and hold the switch up.



You can talk now.

e 845 | e 845-S

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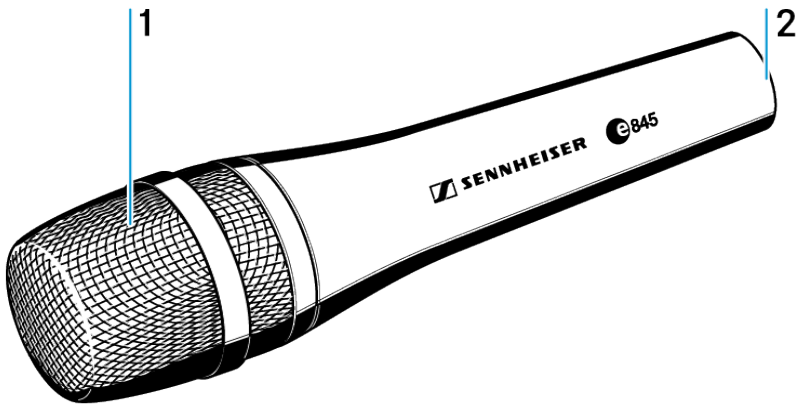
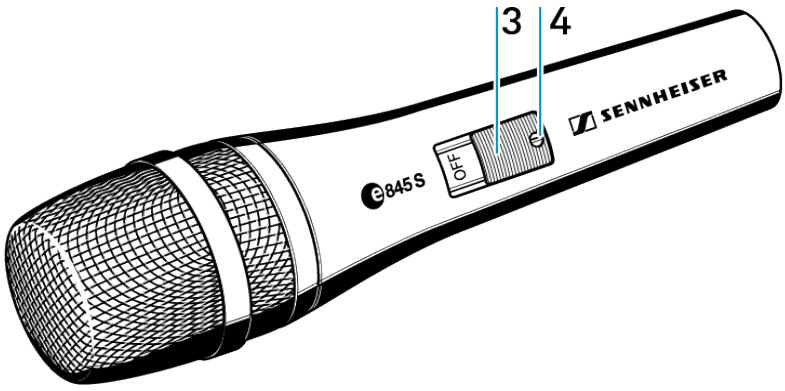


e 845-S



1 Sound inlet basket
- see Using the windshield

2 XLR-3 connector

- see Connecting the microphone

3 **ON/OFF** switch (only e 845-S)

- see Switching the microphone on/off

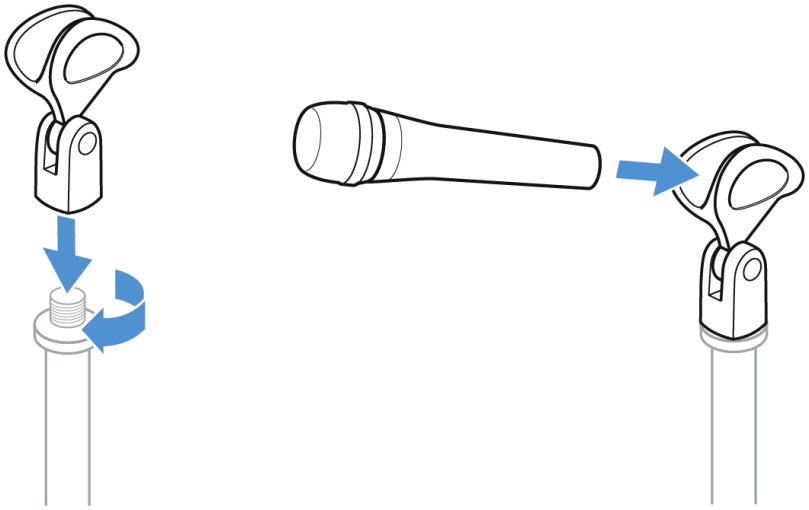
4 Screw (only e 845-S)

- see Switching the microphone on/off

Installation

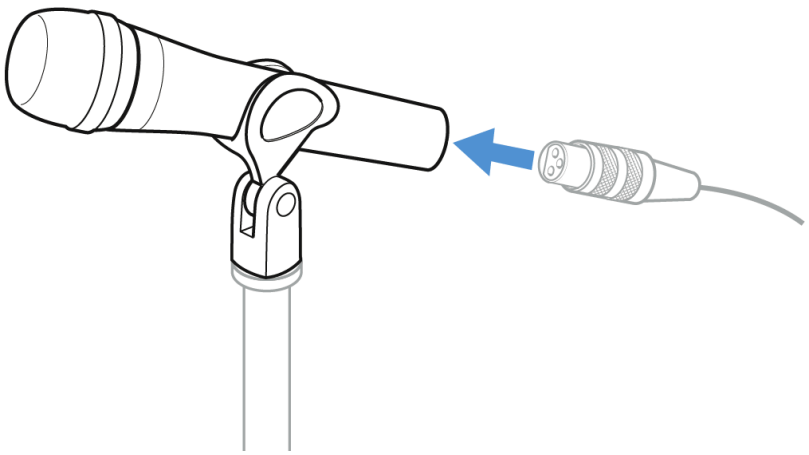
Attaching the microphone

- Screw the microphone clamp to a stand.
- Place the microphone with its back end into the microphone clamp.
- Orient the microphone together with the microphone clamp.



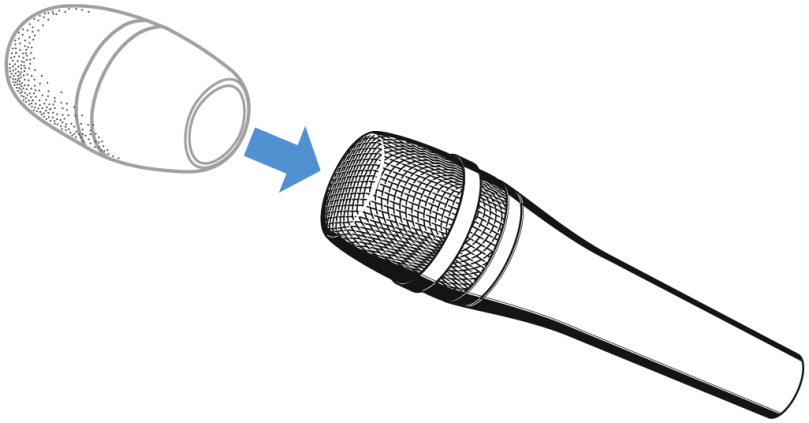
Connecting the microphone

- Connect the XLR-3 socket of the microphone cable (optional accessories) to the XLR-3 socket of the microphone.



Using the windshield

- Place the MZW 4032 (optional accessories) windshield over the microphone head.

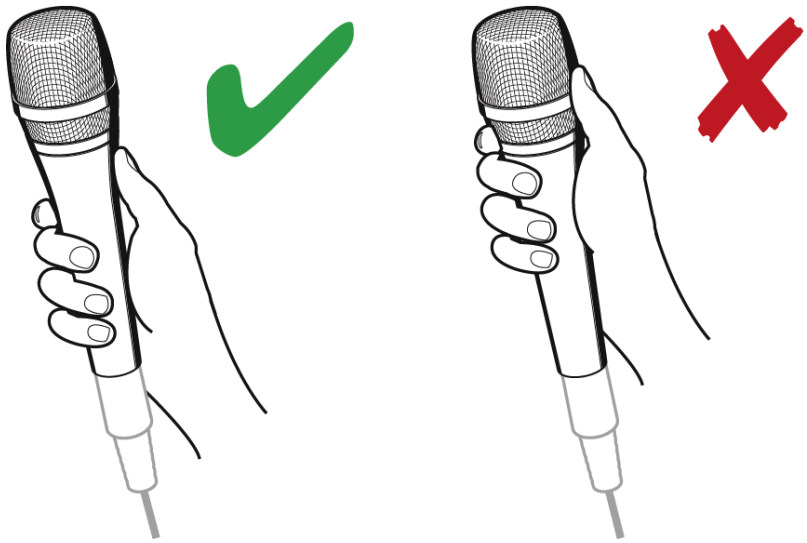


Operation

Holding the microphone

> **i** If you cover the microphone head during transmission, this will change the pick-up pattern of the microphone and consequently the sound.

- Only hold the microphone by its body.



Positioning the microphone

- It is vital to observe the following notes:
  - Position A: Very little crosstalk from other sound sources.
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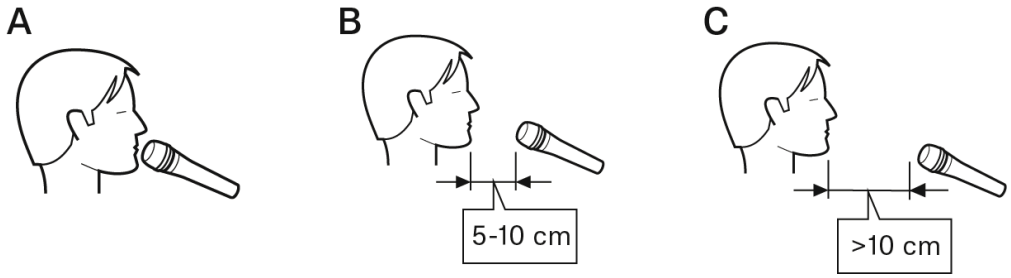
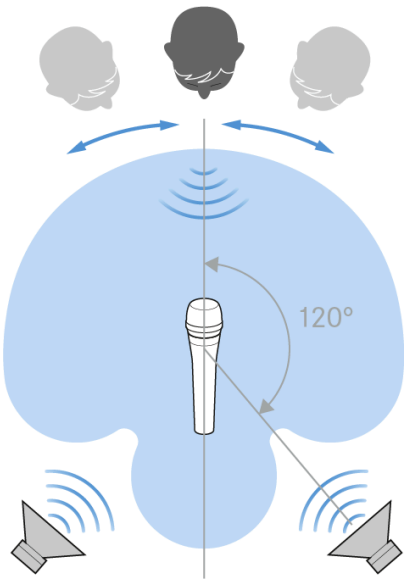
    - Resulting sound: Very little proximity effect (minimal bass boost), more room ambience, indirect sound
- If sibilance occurs: Position the microphone slightly to the side and not directly in front of the mouth.



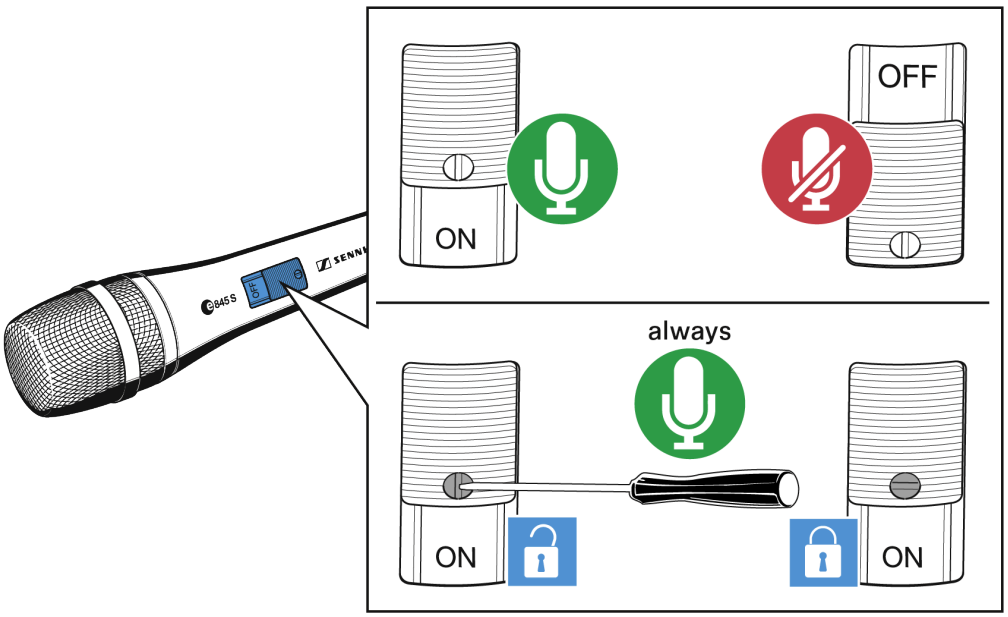
Positioning the monitor loudspeakers

- To prevent feedback and crosstalk, postion your monitor loudspeakers in the angle area of the highest cancellation of the microphone (approx. 120°).



Switching the microphone on/off

- Use the **ON/OFF** switch.
- If necessary, use the screw to lock the **ON/OFF** switch in the „on“ position.



e 865 | e 865-S

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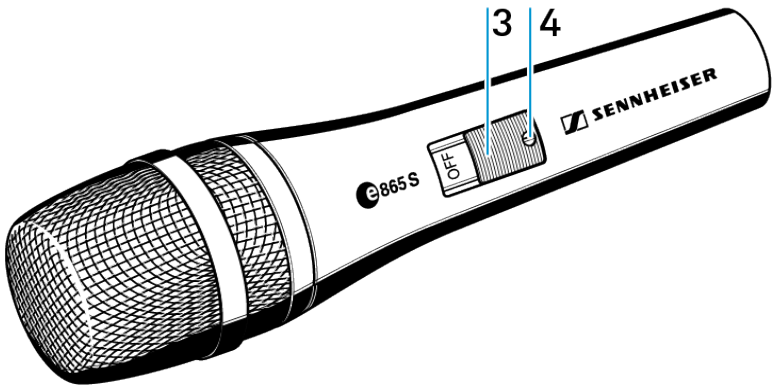


1 Sound inlet basket
- see Using the windshield

2 XLR-3 connector

- see Connecting the microphone

3 **ON/OFF** switch (only e 865-S)

- see Switching the microphone on/off

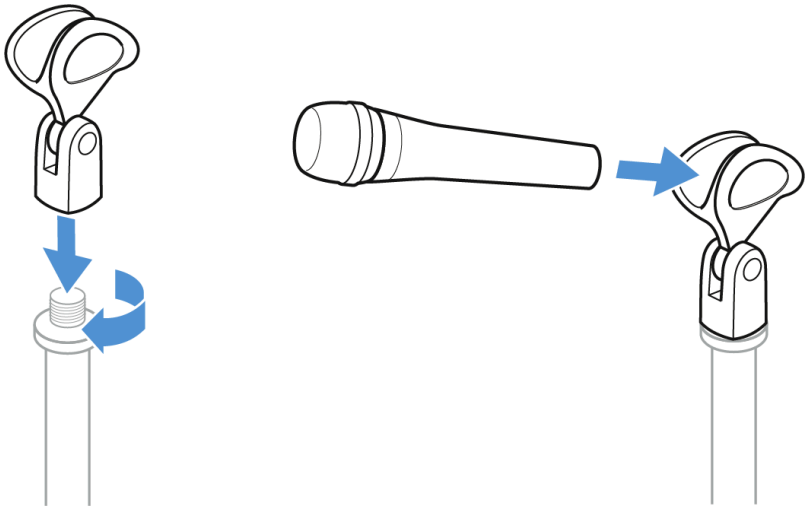
4 Screw (only e 865-S)

- see Switching the microphone on/off

Installation

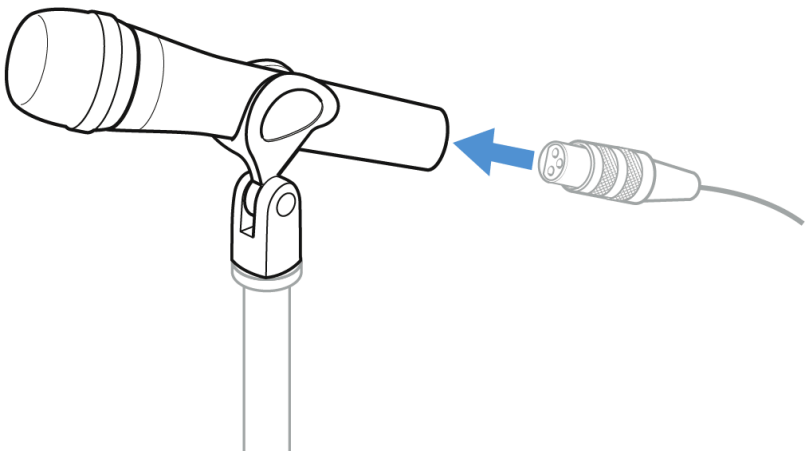
Attaching the microphone

- Screw the microphone clamp to a stand.
- Place the microphone with its back end into the microphone clamp.
- Orient the microphone together with the microphone clamp.



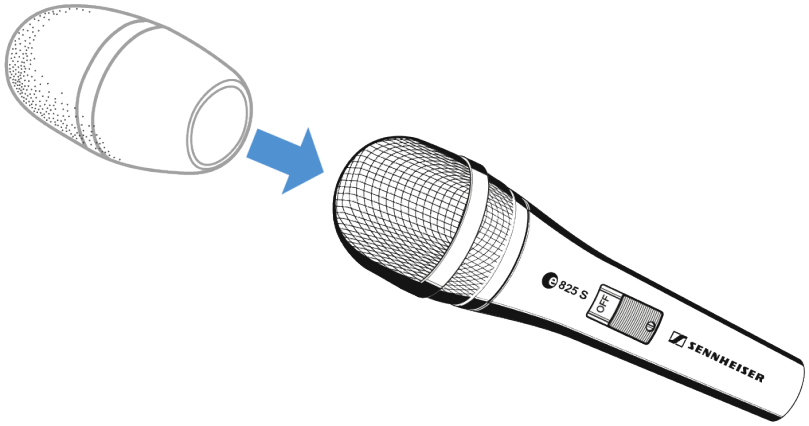
Connecting the microphone

- Connect the XLR-3 socket of the microphone cable (optional accessories) to the XLR-3 socket of the microphone.



Using the windshield

- Place the MZW 4032 (optional accessories) windshield over the microphone head.

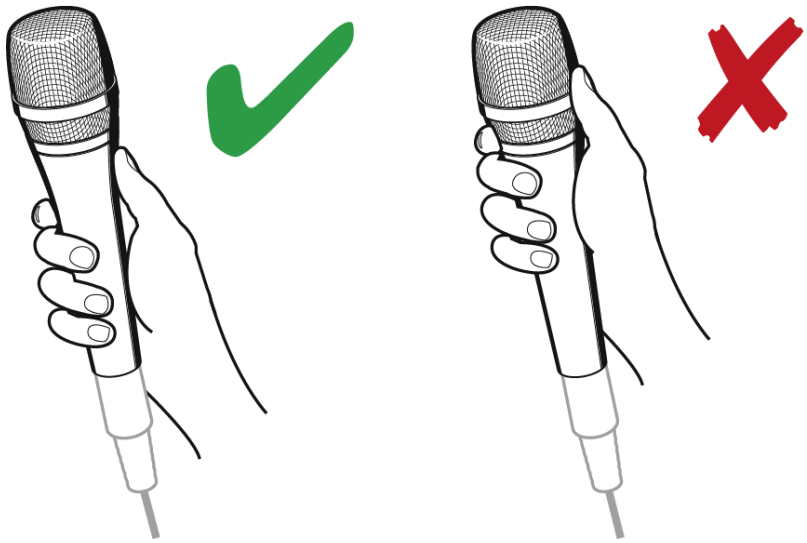


Operation

Holding the microphone

> **i** If you cover the microphone head during transmission, this will change the pick-up pattern of the microphone and consequently the sound.

- Only hold the microphone by its body.



Positioning the microphone

- It is vital to observe the following notes:
  - Position A: Very little crosstalk from other sound sources.
    - Resulting sound: High proximity effect (large bass boost), powerful, direct sound
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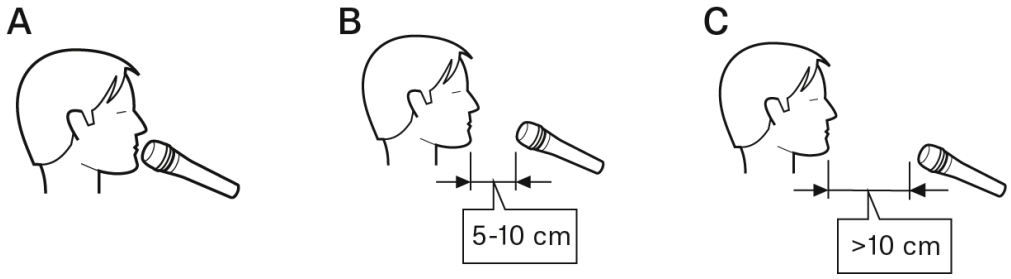
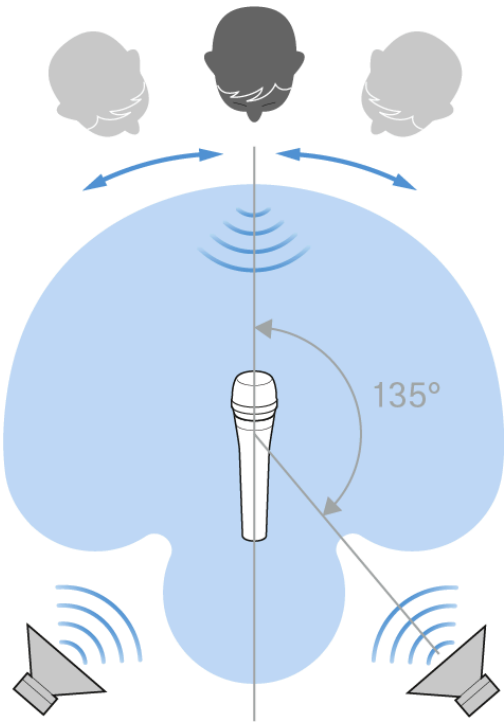
  - Position C: Higher crosstalk from other sound sources.
    - Resulting sound: Very little proximity effect (minimal bass boost), more room ambience, indirect sound
- If sibilance occurs: Position the microphone slightly to the side and not directly in front of the mouth.



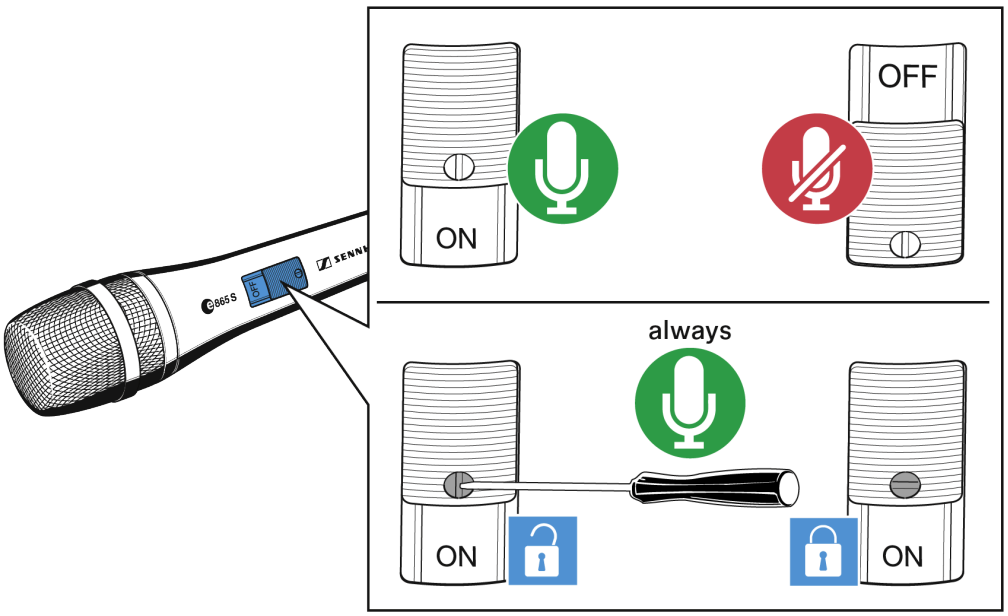
Positioning the monitor loudspeakers

- To prevent feedback and crosstalk, postion your monitor loudspeakers in the angle area of the highest cancellation of the microphone (approx. 135°).



Switching the microphone on/off

- Use the **ON/OFF** switch.
- If necessary, use the screw to lock the **ON/OFF** switch in the „on“ position.

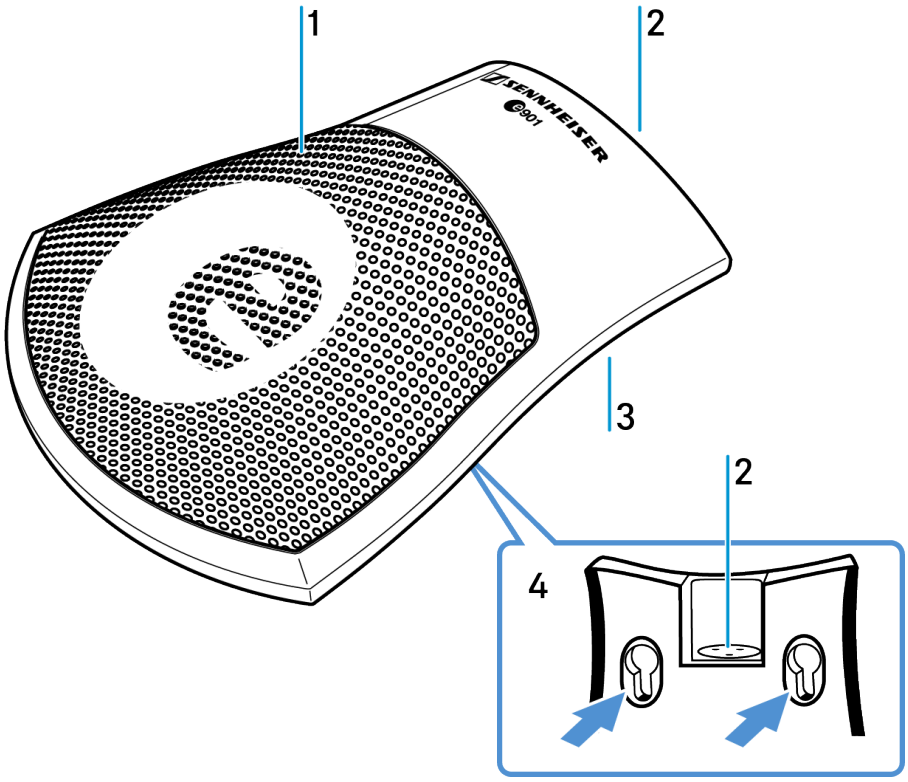


e 901

Related information

Product overview
Installation
Operation

Product overview



1 Sound inlet basket

2 XLR-3 connector

- see Connecting the microphone

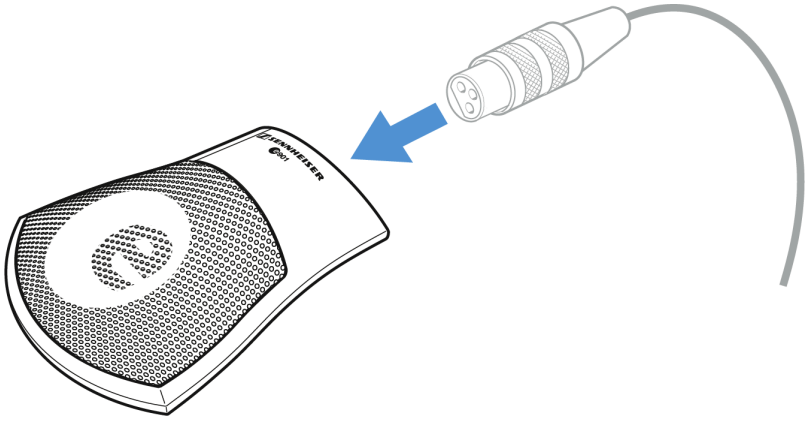
3 Rubber damping plate

4 Mounting slots

Installation

Connecting the microphone

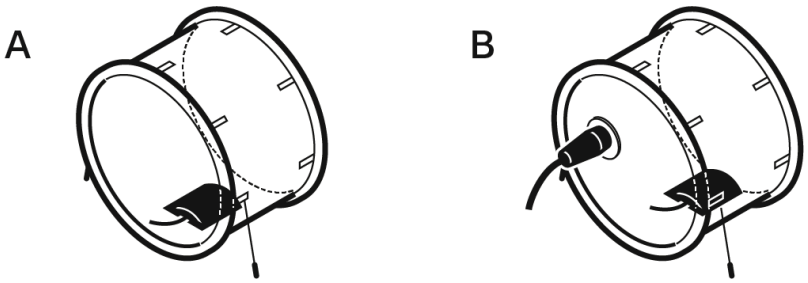
- Connect the XLR-3 socket of the microphone cable (optional accessories) to the XLR-3 socket of the microphone.



Operation

Positioning the microphone in a drum

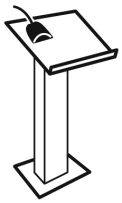
- Place the e 901 in the drum. Position the microphone so that its sound inlet basket is directed upwards.
- It is vital to observe the following notes:
    - Position A: Position the microphone at the bottom of the kick drum, approx. 10 - 20 cm from the batter head.
        - Resulting sound: Much resonance; much attack; less attack: Turn the microphone away from where the beater strikes.
    - Position B: Combined with an e 902 positioned at the resonant head. The lower micro-phone must be phase-reversed to avoid phase-cancellation effects due to the second microphone being on the other side of the drumskin.
        - Resulting sound: The e 901 is used for picking up the attack, the e 902 for picking up the fundamental.



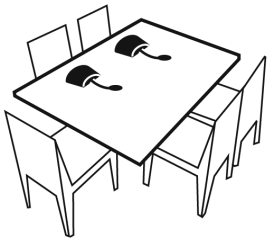
Positioning the microphone on sound-reflecting surfaces

- Place the e 901 on the desired sound-reflecting surface. Position the microphone so that its sound inlet basket is directed towards the sound source.
- It is vital to observe the following notes:
    - Position C: Lying on the altar or lectern. Unobtrusive due to flat design. No microphones in the field of vision.
        - Resulting sound: Less room resonance portions or comb filter elements; improved speech intelligibility; greater gain reserves in contrast to free-standing microphones
    - Position D: Lying on the conference table, directed towards the conference participants. Microphone must not be covered by papers, folders or similar objects.
        - Resulting sound: Less room resonance in contrast to free-standing microphones
    - Position E: Lying at the edge of the stage and directed towards the stage. As spot microphone of the PA system or for monitoring purposes in the theater cloakrooms. Excellent rejection of rumble noise; if necessary, place the microphone on a soft pad (e.g. mousepad). If necessary, combine with overhead microphones (e.g. Sennheiser ME 36 with MZH 30 B & MZC 30).
        - Resulting sound: Less room resonance in contrast to free-standing microphones; improved speech intelligibility

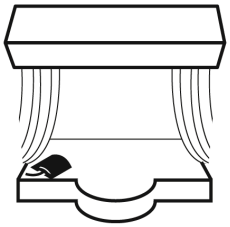
C



D

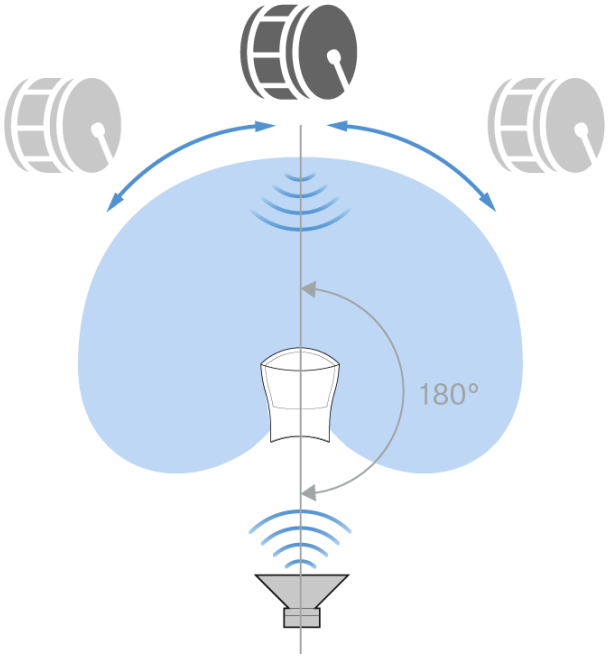


E



Positioning the monitor loudspeakers

- To prevent feedback and crosstalk, postion your monitor loudspeakers in the angle area of the highest cancellation of the microphone (approx. 180°).

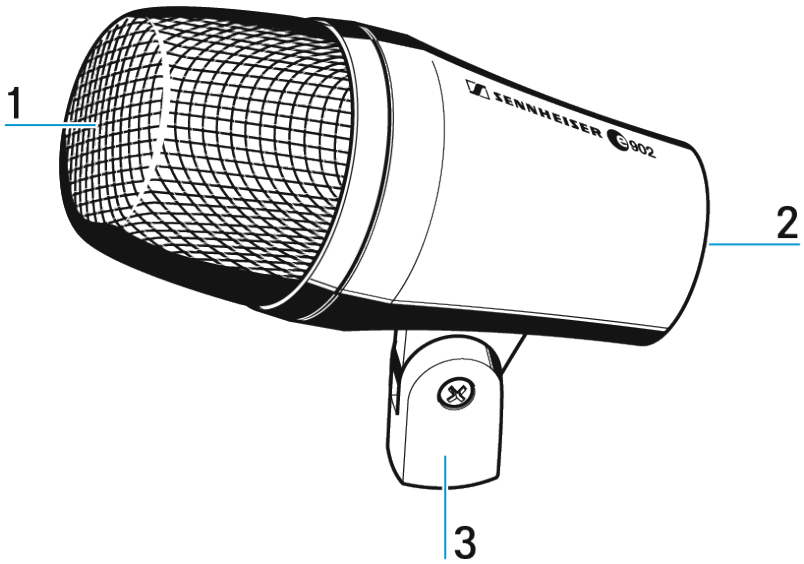


e 902

Related information

Product overview
Installation
Operation

Product overview



1 Sound inlet basket

2 XLR-3 connector

- see Connecting the microphone

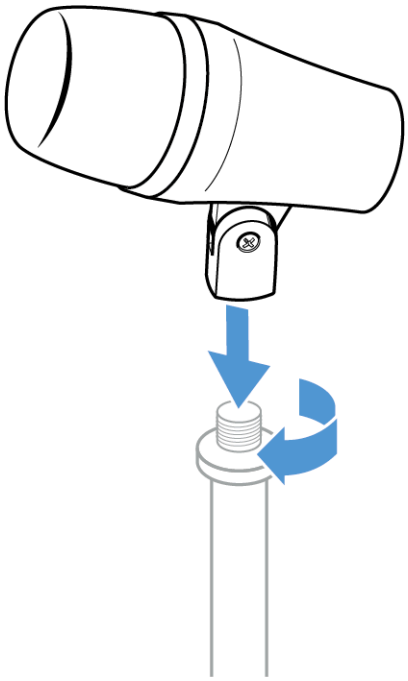
3 Integral stand mount

- see Attaching the microphone

Installation

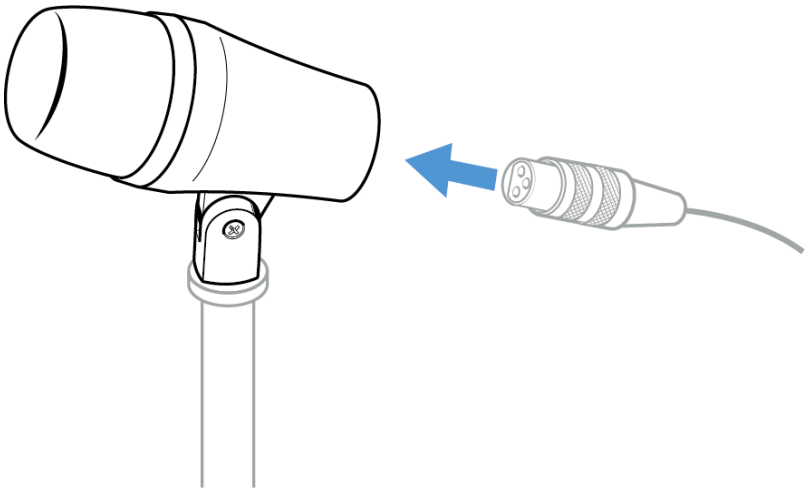
Attaching the microphone

- Screw the microphone's built-in mount onto a sufficiently stable microphone stand.



Connecting the microphone

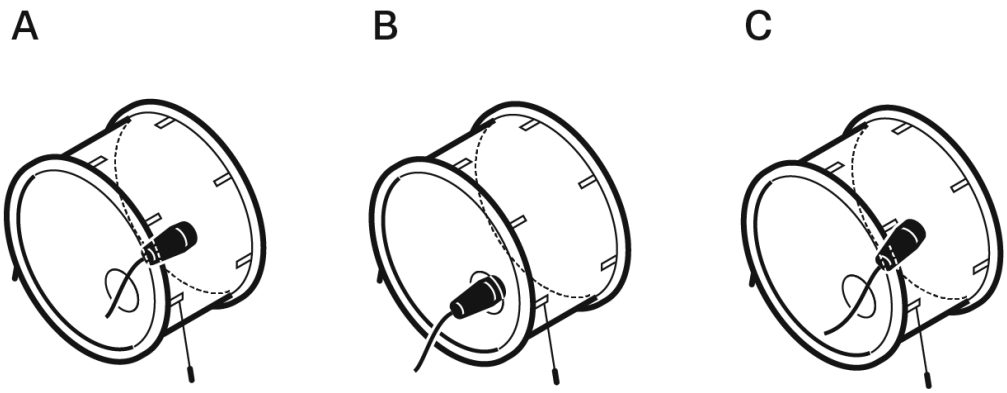
- Connect the XLR-3 socket of the microphone cable (optional accessories) to the XLR-3 socket of the microphone.



Operation

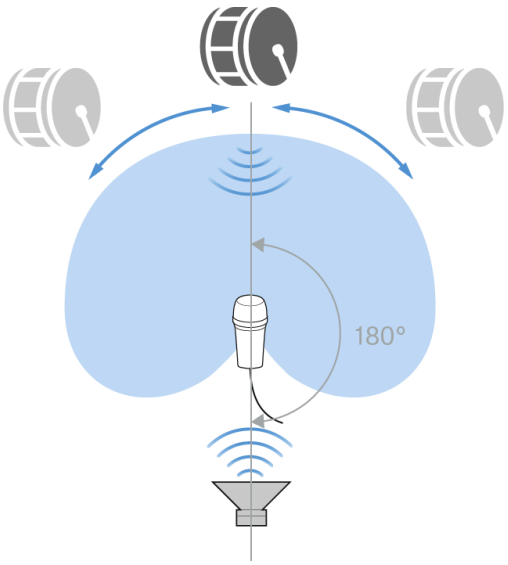
Positioning the microphone on a kick drum

- Use the integral stand mount to attach the microphone.
- It is vital to observe the following notes:
    - Position A: Position the microphone at a distance of a few centimeters from the batter head.
        - Resulting sound: much attack; little resonance; dry
    - Position B: Position the microphone at the level of the resonant head.
        - Resulting sound: less attack; much resonance; smooth and voluminous
    - Position C: Position the microphone in the middle between the batter head and the resonant head.
        - Resulting sound: less Attack



Positioning the monitor loudspeakers

- To prevent feedback and crosstalk, postion your monitor loudspeakers in the angle area of the highest cancellation of the microphone (approx. 180°).

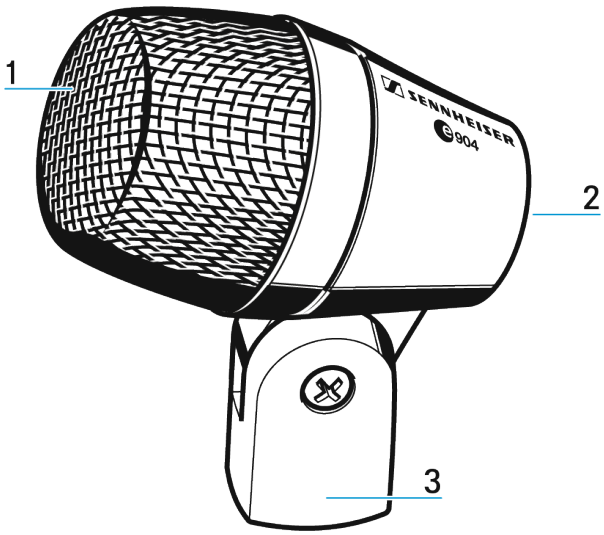


e 904

Related information

Product overview
Installation
Operation

Product overview



1 Sound inlet basket

2 XLR-3 connector

- see Connecting the microphone

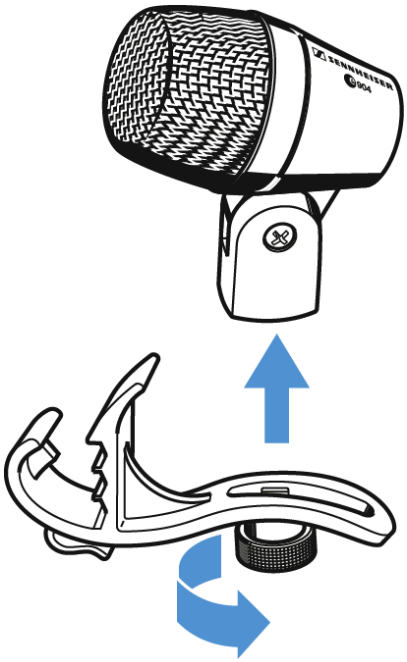
3 Integral stand mount

- see Attaching the microphone

Installation

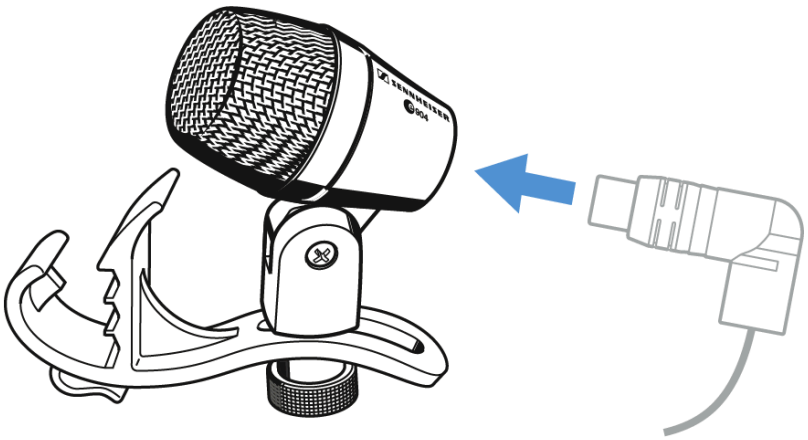
Attaching the microphone

- Fasten the holder to the microphone using the screw.



Connecting the microphone

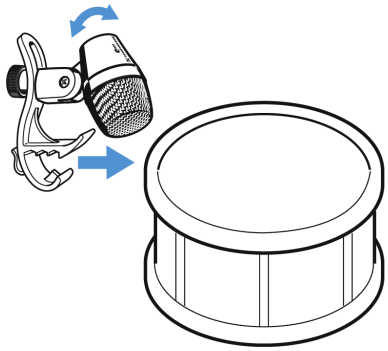
- Connect the XLR-3 socket of the microphone cable (optional accessories) to the XLR-3 socket of the microphone.

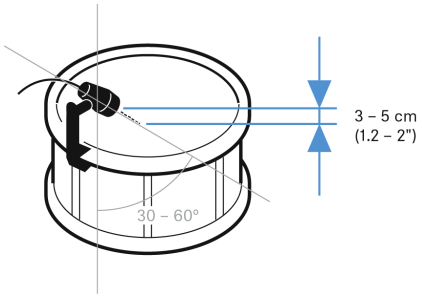


Operation

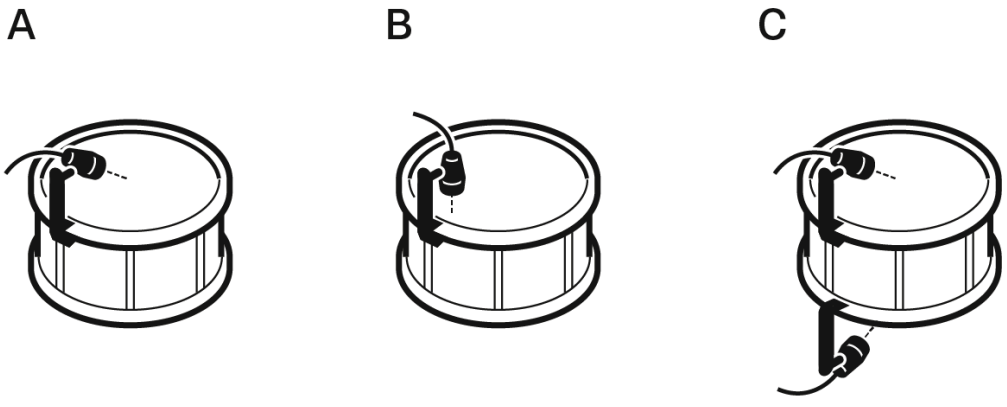
Positioning the microphone on a drum

- Use the microphone clamp MZH 604 to attach the e 904 to the rim of the drum.
- Position the microphone on the drum so that it is 3 to 5 cm above the drumhead.



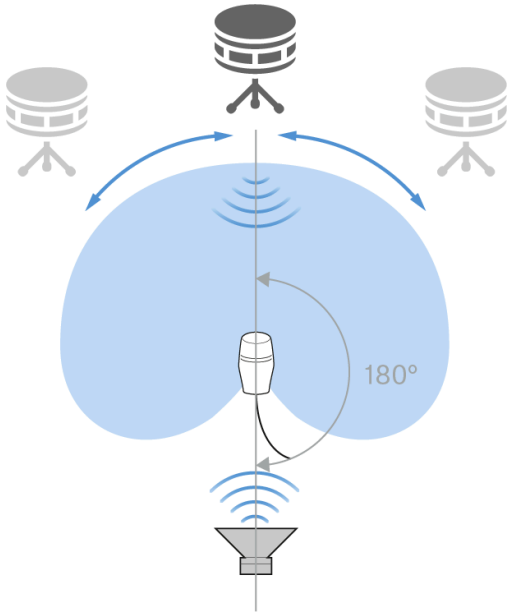


- It is vital to observe the following notes:
  - Position A and B: The fundamental to overtones ratio can be adjusted by changing the angle of the microphone. The most balanced results are obtained at an angle of 30 to 60°.
    - Resulting sound A: More fundamental; little overtones
    - Resulting sound B: Less fundamental; many overtones
  - Position C: Use of a second e 904 for picking up the bottom of the drumskin and the snares.
    - The lower microphone must be phase-reversed to avoid phase-cancellation effects due to the second microphone being on the other side of the drumskin



Positioning the monitor loudspeakers

- To prevent feedback and crosstalk, postion your monitor loudspeakers in the angle area of the highest cancellation of the microphone (approx. 180°).

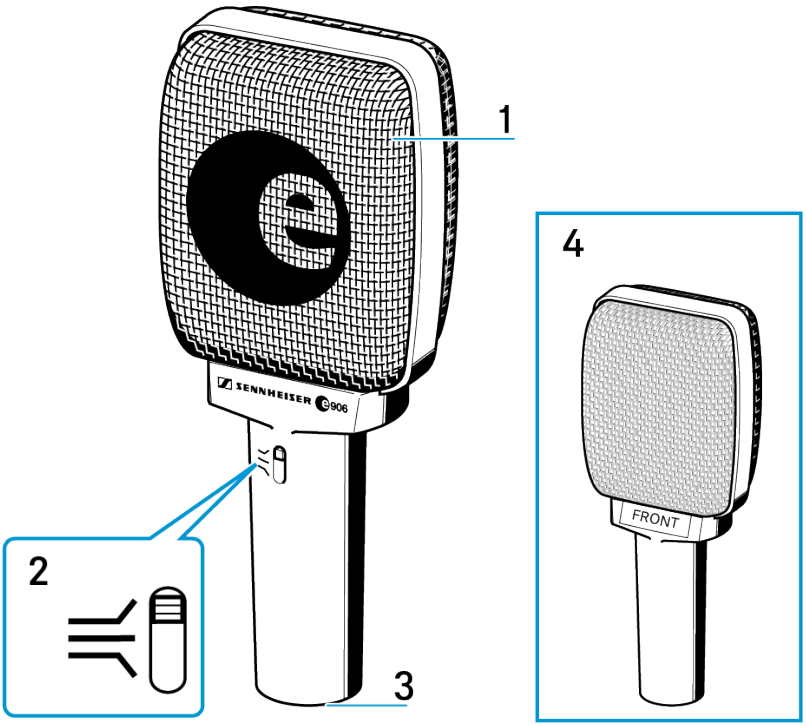


e 906

Related information

Product overview
Installation
Operation

Product overview



1 Sound inlet basket

2 3-position slide switch for adjusting the presence filter

- see Adapting the sound characteristics

3 XLR-3 connector

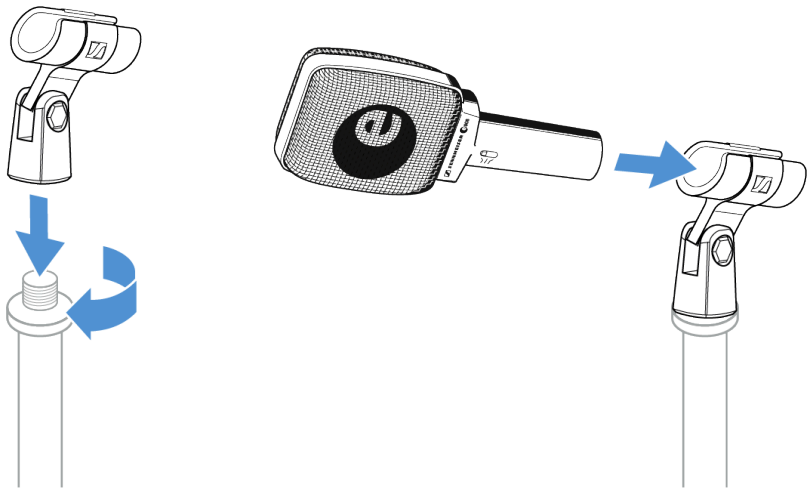
- see Connecting the microphone

4 Front

Installation

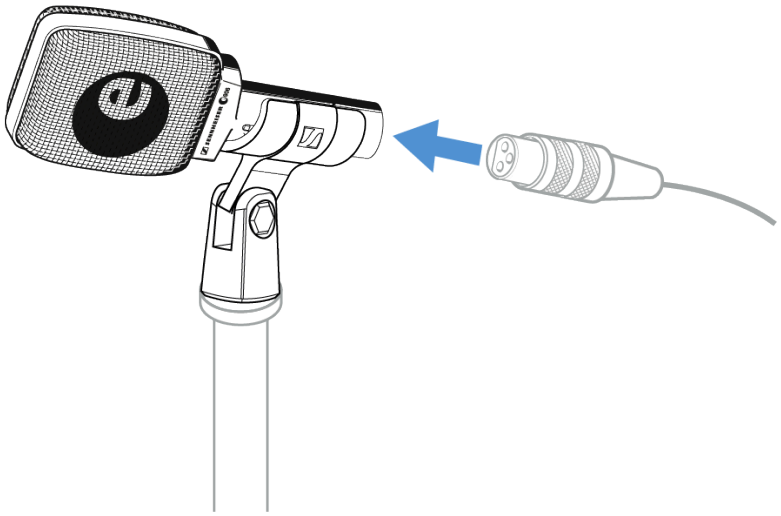
Attaching the microphone

- Screw the microphone clamp to a stand.
- Place the microphone with its back end into the microphone clamp.
- Orient the microphone together with the microphone clamp.



Connecting the microphone

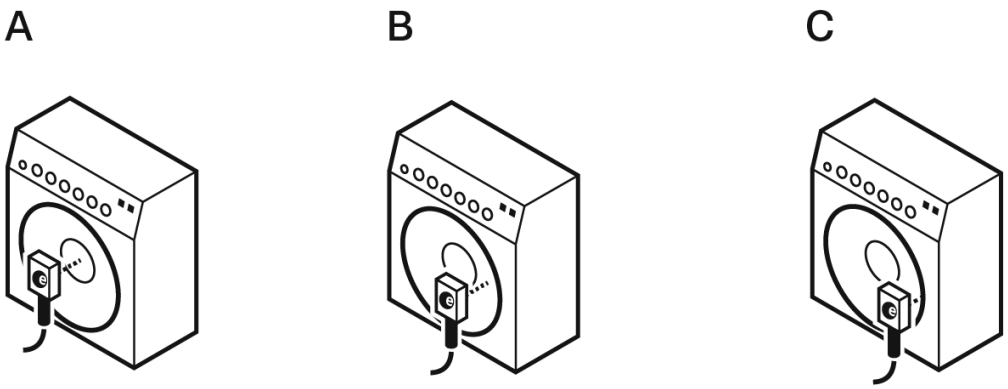
- Connect the XLR-3 socket of the microphone cable (optional accessories) to the XLR-3 socket of the microphone.



Operation

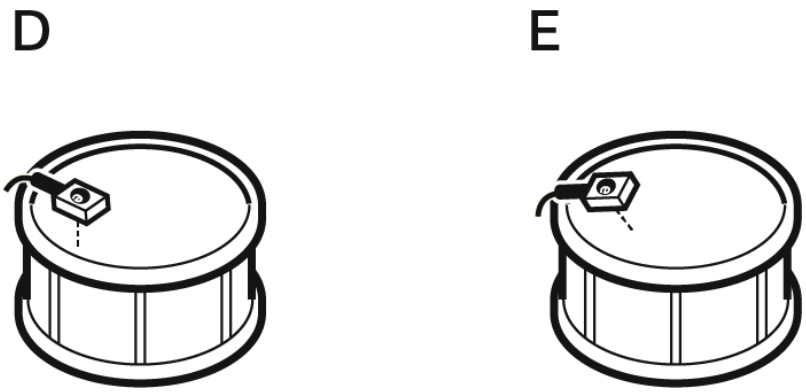
Positioning the microphone an a guitar amp

- The front of the microphone must face the guitar amplifier.
- It is vital to observe the following notes:
    - Position A: Microphone directed towards the dome of the loudspeaker.
        - Resulting sound: many trebles; aggressive sound
    - Position B: Microphone directed towards the middle between dome and edge of the loudspeaker. If necessary, turn the microphone by approx. 30° towards the edge.
        - Resulting sound: less trebles, more lower mids, smoother sound; balanced, natural sound
    - Position C: Microphone directed towards the edge of the loudspeaker.
        - Resulting sound: less trebles, more lower mids, smoother sound



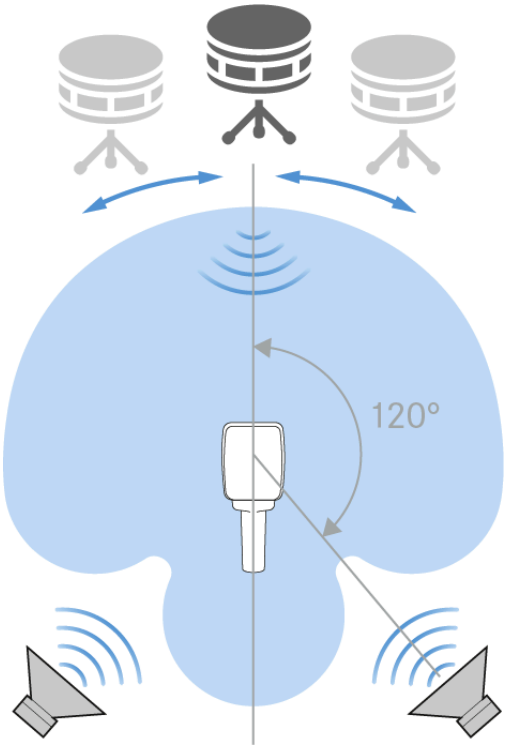
Positioning the microphone on a drum

- The front of the microphone must face the drum.
- It is vital to observe the following notes:
    - Position D: Position the microphone on the drum so that it is 3 to 5 cm above the batter head. Direct the microphone towards the center of the batter head. The fundamental tone to overtones ratio can be adjusted via the angle. The most balanced results are obtained at an angle of 30–60°.
        - Resulting sound D: more fundamental tone, little overtones
        - Resulting sound E: less fundamental tone, many overtones



Positioning the monitor loudspeakers

- To prevent feedback and crosstalk, postion your monitor loudspeakers in the angle area of the highest cancellation of the microphone (approx. 120°).

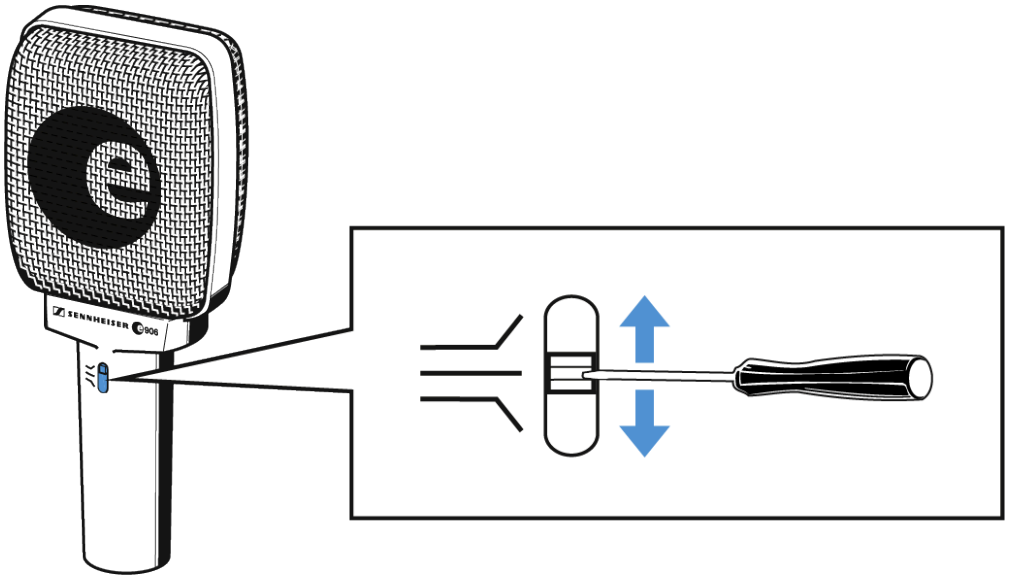


Adapting the sound characteristics

i The e 906 features a switchable presence filter which allows to adapt the microphone to the different sound requirements and styles (see Frequency response).

The mid frequency of the presence filter is 4.2 kHz.

▶ Use a pointed tool such as a small screwdriver to move the 3-position slide switch to the desired position.



- Setting: boosted presence range
- Suitability: e.g. for aggressive metal rhythm guitars

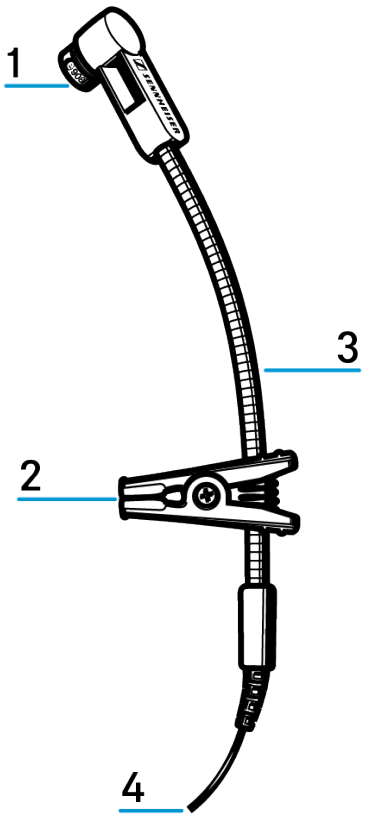
- Setting: normal presence range
- Suitability: e.g. for classic rock

- Setting: attenuated presence range
- Suitability: e.g. for warm and smooth jazz and blues sounds

e 908

Related information
Product overview
Installation
Operation

Product overview



1 Microphone head
- see Using the windshield

2 Microphone clamp MZH 908 B

3 Gooseneck
- see Attaching the microphone

4 e 908 B: XLR-3 connector

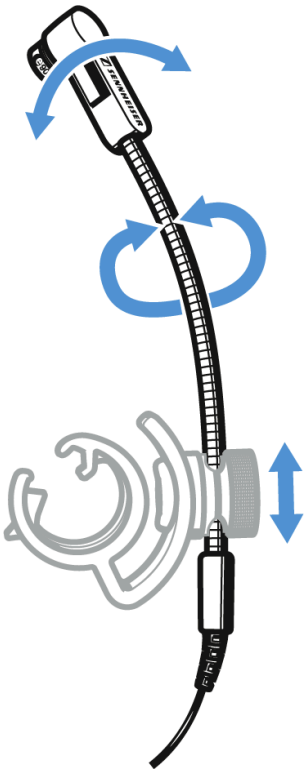
e 908 B ew: 3.5 mm jack

- see Connecting the microphone

Installation

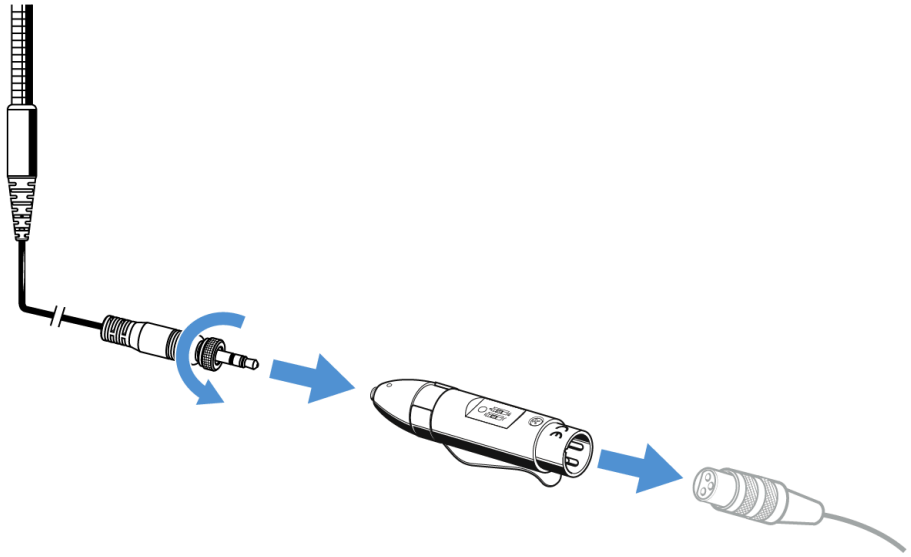
Attaching the microphone

- Carefully bend the flexible goose neck.



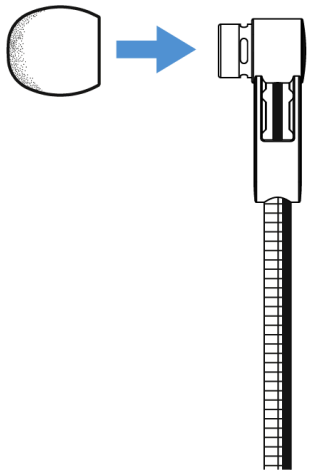
Connecting the microphone

- Plug the 3.5 mm mini jack plug into the 3.5 mm jack socket of the MZA 900 P phantom power adapter (included with e 908 B).
- Tighten the coupling ring.
- Plug the XLR cable into the XLR output of the MZA 900 P phantom power adapter.



Using the windshield

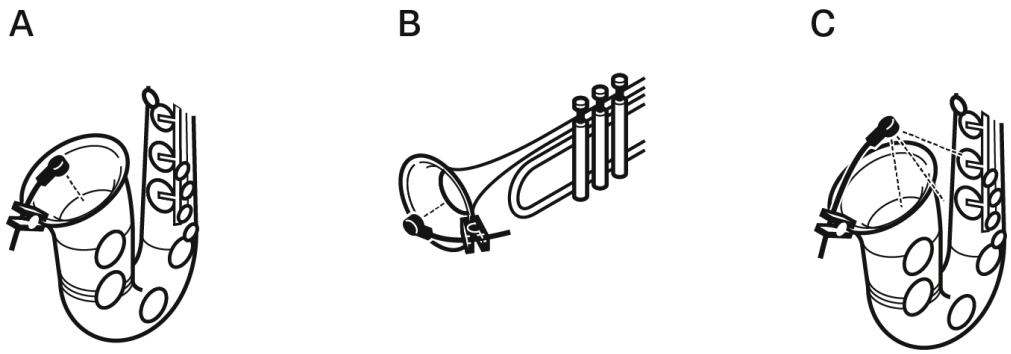
- Place the MZW 908 (optional accessories) windshield over the microphone head.



Operation

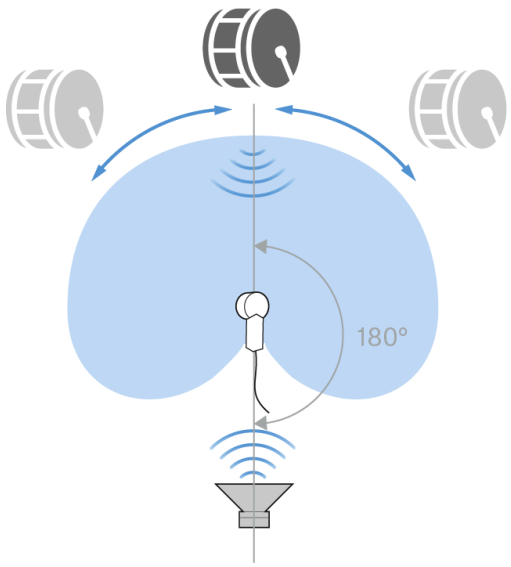
Positioning the microphone on a wind instrument

- Use the microphone clamp MZH 908 B to attach the microphone to the bell of the instrument.
- It is vital to observe the following notes:
  - Position A and B: Directed into the bell of the instrument.
    - Resulting sound A: Reduced ambient noise
    - Resulting sound B: Clear, powerful sound
  - Position C: Directed partly towards the bell and partly towards the body of the instrument.
    - Resulting sound: Balanced, natural sound



Positioning the monitor loudspeakers

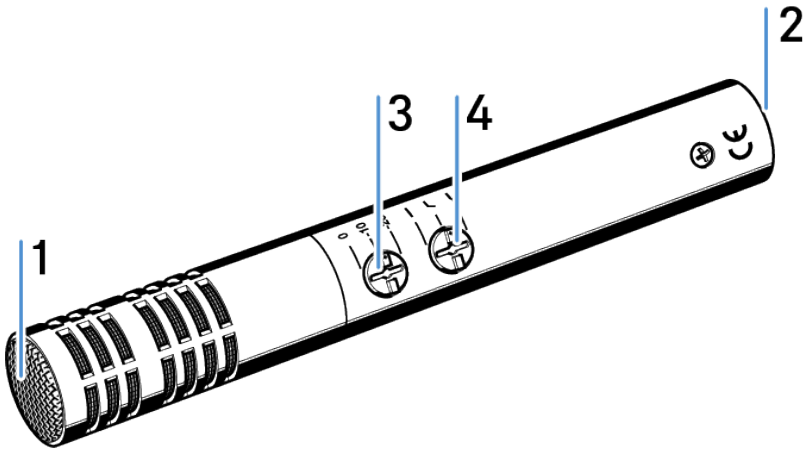
- To prevent feedback and crosstalk, postion your monitor loudspeakers in the angle area of the highest cancellation of the microphone (approx. 180°, see Polar pattern).



e 914

Related information
Product overview
Installation
Operation

Product overview



1 Sound inlet basket
- see Using the windshield

2 XLR-3 connector
- see Connecting the microphone

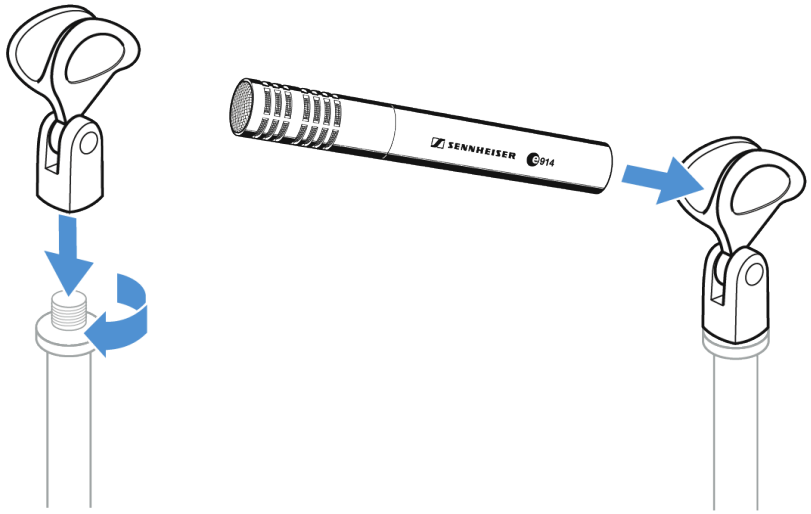
3 Adjusting the sensitivity
- see Adjusting the sensitivity

4 Adjusting the bass filter
- see Adjusting the bass filtern

Installation

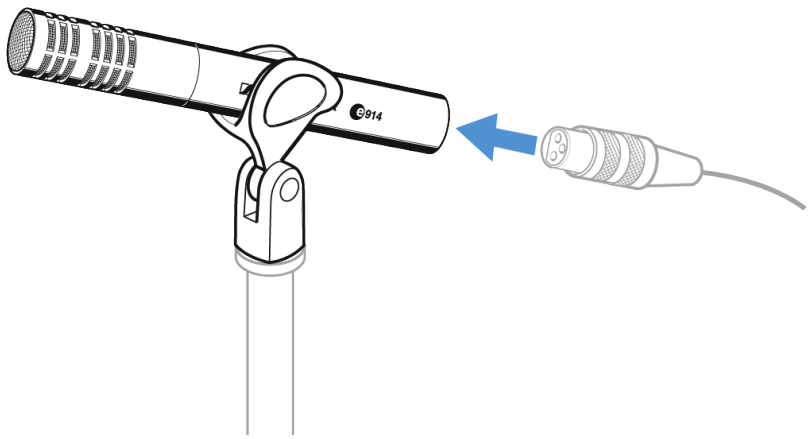
Attaching the microphone

- Screw the microphone clamp to a stand.
- Place the microphone with its back end into the microphone clamp.
- Orient the microphone together with the microphone clamp.



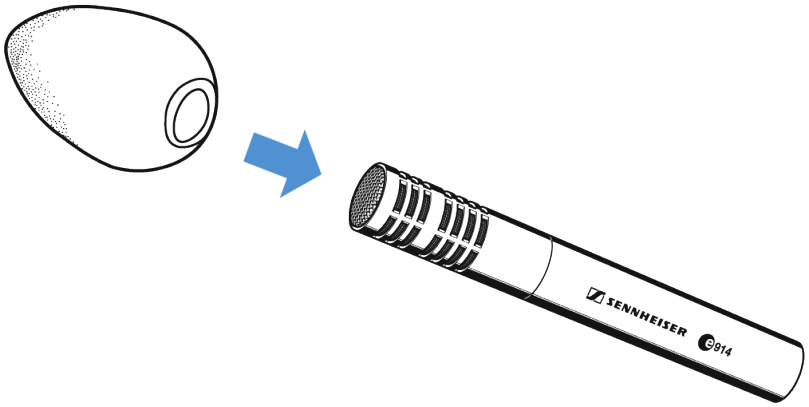
Connecting the microphone

- Connect the XLR-3 socket of the microphone cable (optional accessories) to the XLR-3 socket of the microphone.



Using the windshield

- Place the MZW 64 (optional accessories) windshield over the microphone head.



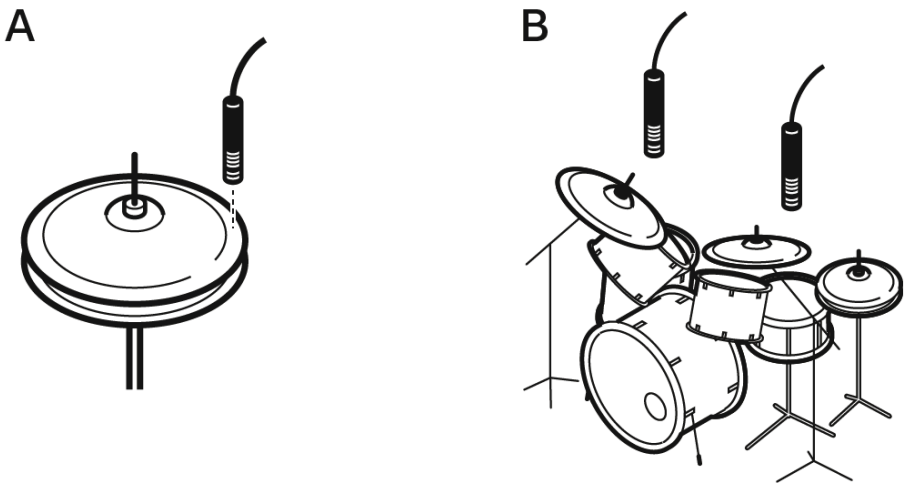
Operation

Positioning the microphone: Drums / Percussions

> **i** Attention: When closing the hi-hat, a strong air current is created on the edge. If the microphone is positioned too close to the edge, interfering noise due to the air current can occur.

▶ It is vital to observe the following notes:

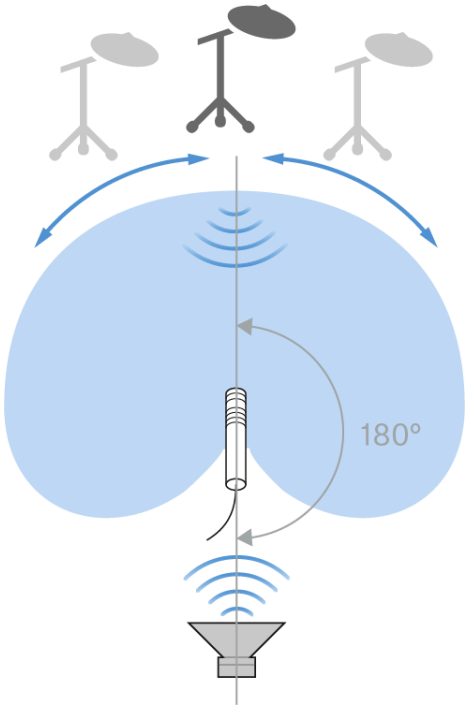
- Position A: Position the microphone a few centimetres above the outer edge of the hi-hat aiming down. If necessary, remove unwanted low-frequency signal portions by high pass filtering.
- Position B: Good starting position for live miking applications. If the overhead microphones are only used for picking up the cymbals, unwanted signal portions can be attenuated by high pass filtering.



In order to prevent interference due to crosstalk between adjacent sound sources, try to position the microphone so that the interfering sound source is located in the angle area of the highest cancellation of the microphone (approx. 180°, see Polar pattern).

Positioning the monitor loudspeakers

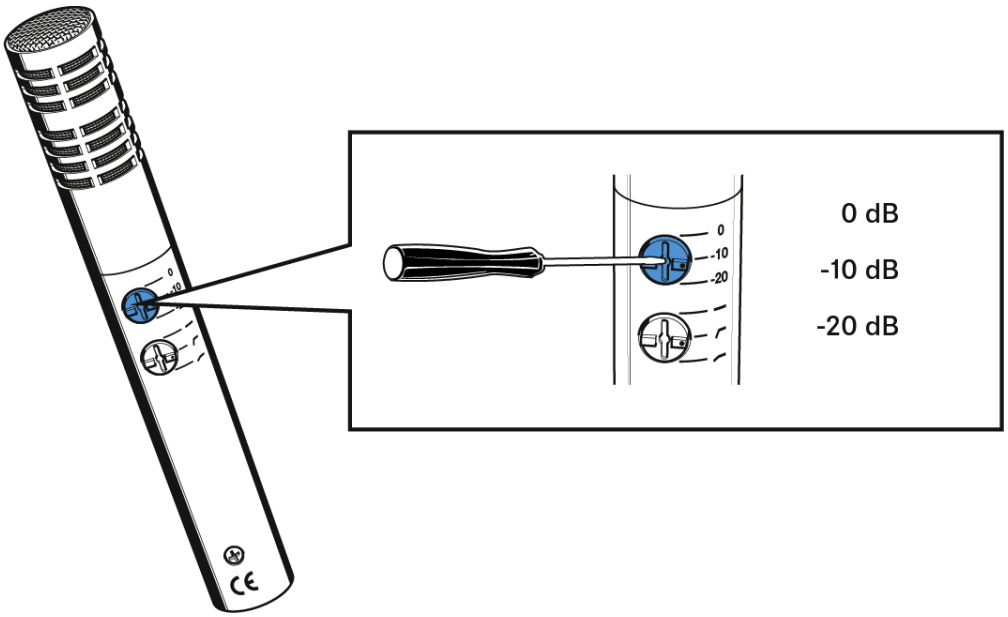
- To prevent feedback and crosstalk, postion your monitor loudspeakers in the angle area of the highest cancellation of the microphone (approx. 180°, see Polar pattern).



Adjusting the sensitivity

- The microphone sensitvity can remain unchanged (0) or be reduced by 10 dB or 20 dB.
  The latter is recommended when there is a risk that the microphone or subsequent microphone input is overmodulated, e.g. due to high sound pressure levels from drums, brass instruments, etc.

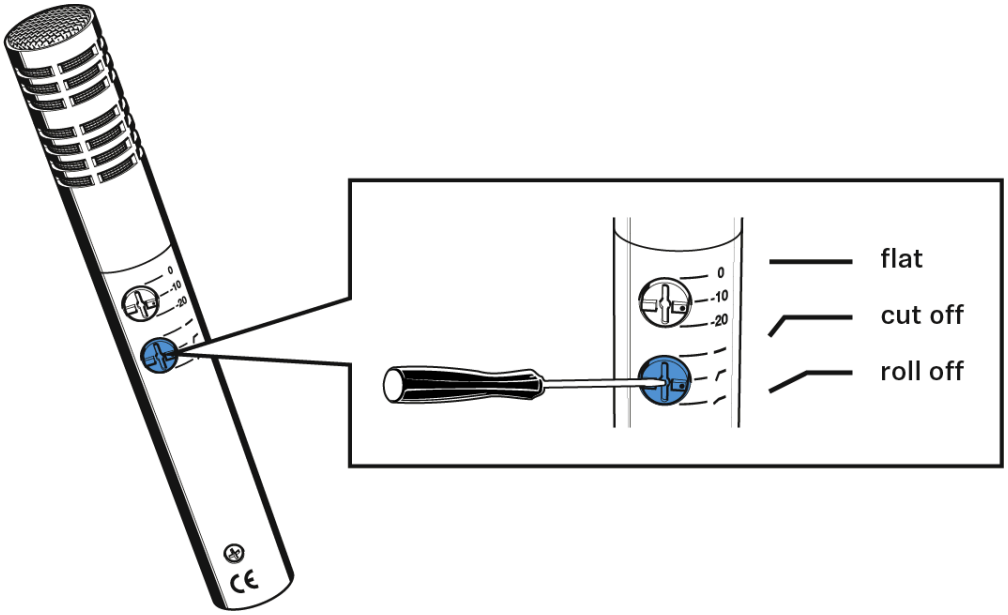
> **i** We recommend that you mute the corresponding microphone channel on the mixing console before connecting and disconnecting the microphone cable, switching on and off the phantom powering or setting the switches.



Adjusting the bass filtern

> The e 914 has been designed for an extended low-frequency bass response. With certain live or close instrument miking applications, an over-emphasis of the low frequencies can occur.

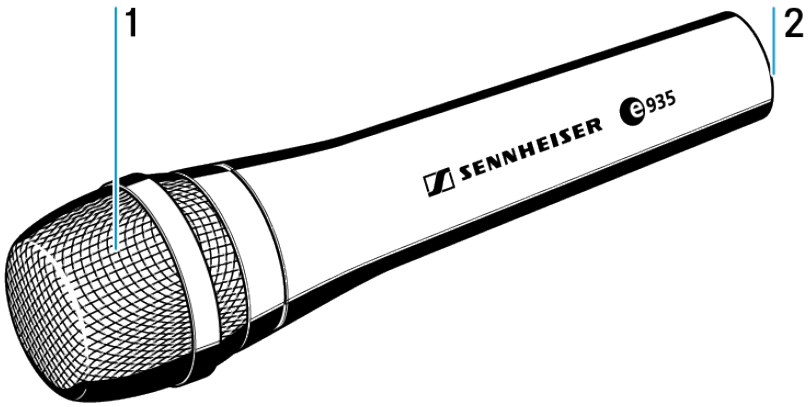
- This can be compensated for by the 6 dB/octave roll-off filter. The cut-off filter reduces low-frequency wind noise by 18 dB/octave.



e 935

Related information
Product overview
Installation
Operation

Product overview



1 Sound inlet basket

- see Using the windshield

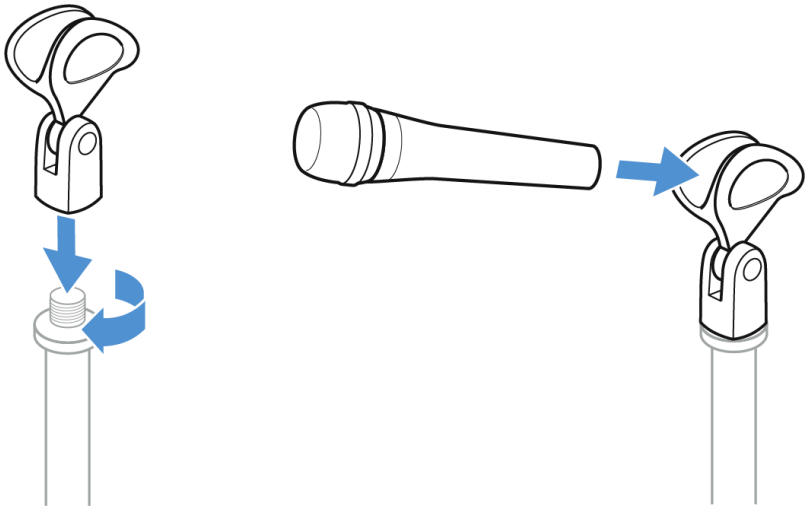
2 XLR-3 connector

- see Connecting the microphone

Installation

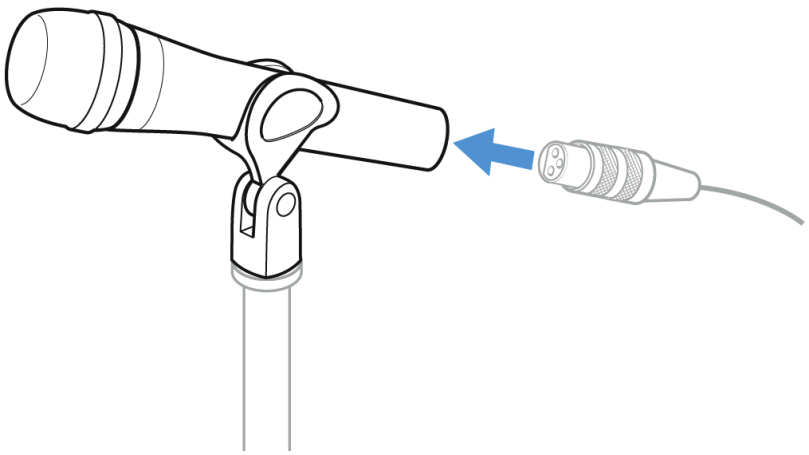
Attaching the microphone

- Screw the microphone clamp to a stand.
- Place the microphone with its back end into the microphone clamp.
- Orient the microphone together with the microphone clamp.



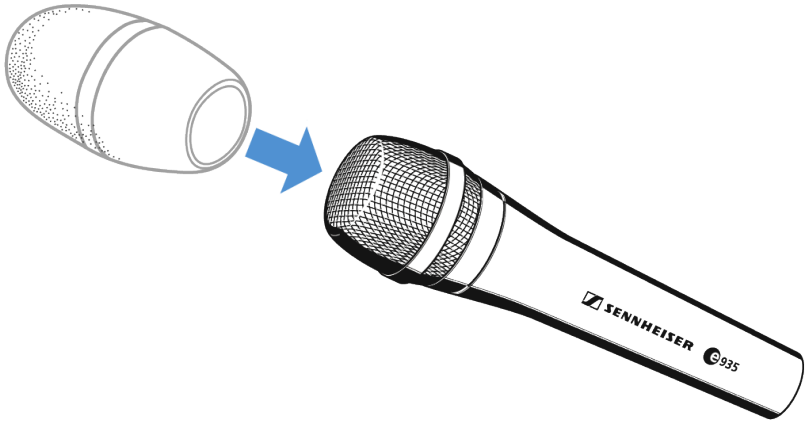
Connecting the microphone

- Connect the XLR-3 socket of the microphone cable (optional accessories) to the XLR-3 socket of the microphone.



Using the windshield

- Place the MZW 4032 (optional accessories) windshield over the microphone head.

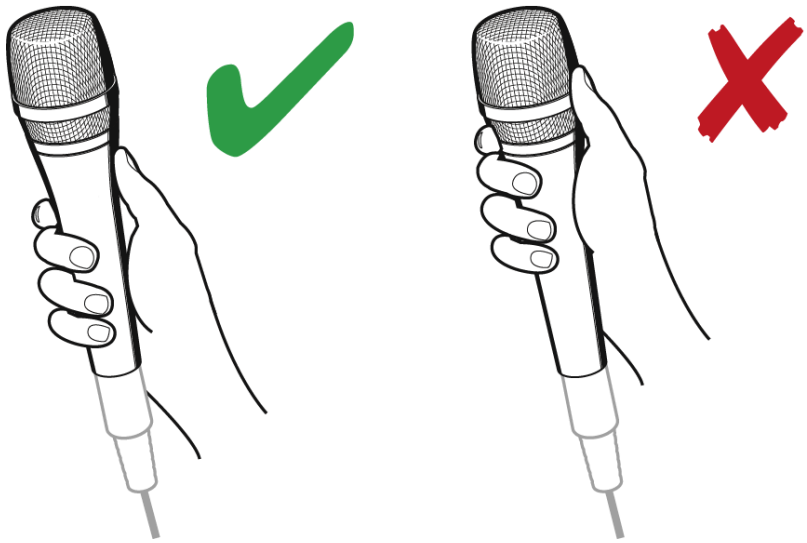


Operation

Holding the microphone

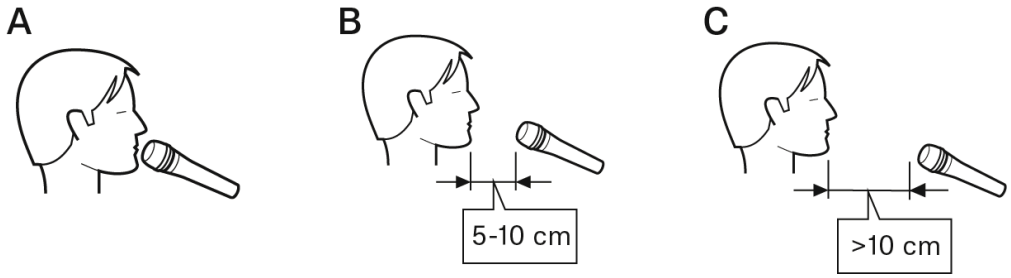
> **i** If you cover the microphone head during transmission, this will change the pick-up pattern of the microphone and consequently the sound.

- Only hold the microphone by its body.



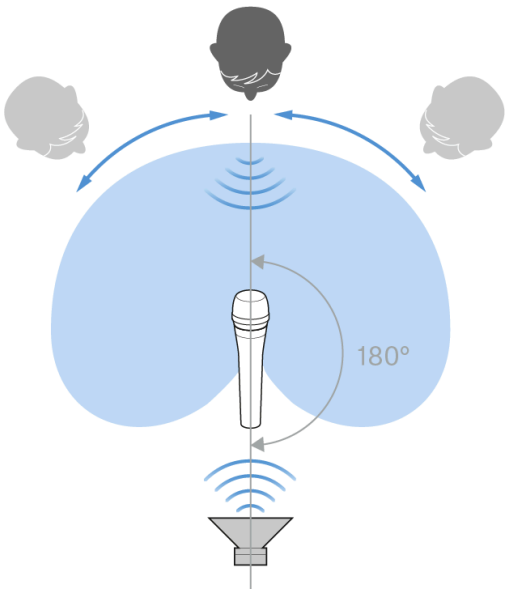
Positioning the microphone

- It is vital to observe the following notes:
  - Position A: Very little crosstalk from other sound sources.
    - Resulting sound: High proximity effect (large bass boost), powerful, direct sound
  - Position B: More crosstalk from other sound sources.
    - Resulting sound: Less proximity effect (less bass boost), some room ambience, natural, balanced sound
  - Position C: Higher crosstalk from other sound sources.
    - Resulting sound: Very little proximity effect (minimal bass boost), more room ambience, indirect sound
- If sibilance occurs: Position the microphone slightly to the side and not directly in front of the mouth.



Positioning the monitor loudspeakers

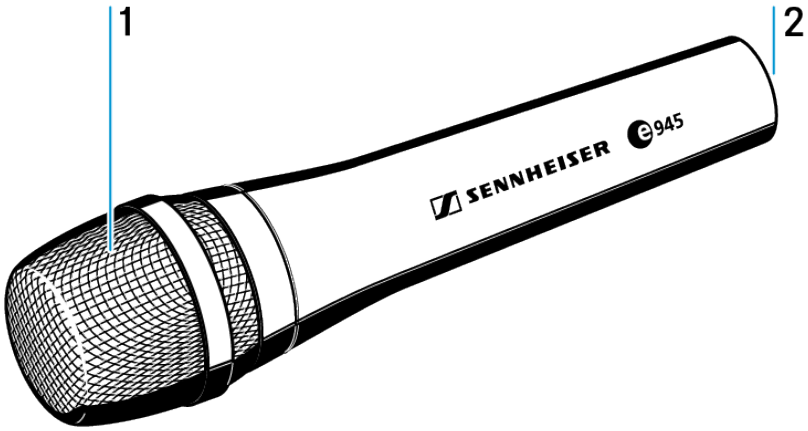
- To prevent feedback and crosstalk, postion your monitor loudspeakers in the angle area of the highest cancellation of the microphone (approx. 180°).



e 945

Related information
Product overview
Installation
Operation

Product overview



1 Sound inlet basket

- see Using the windshield

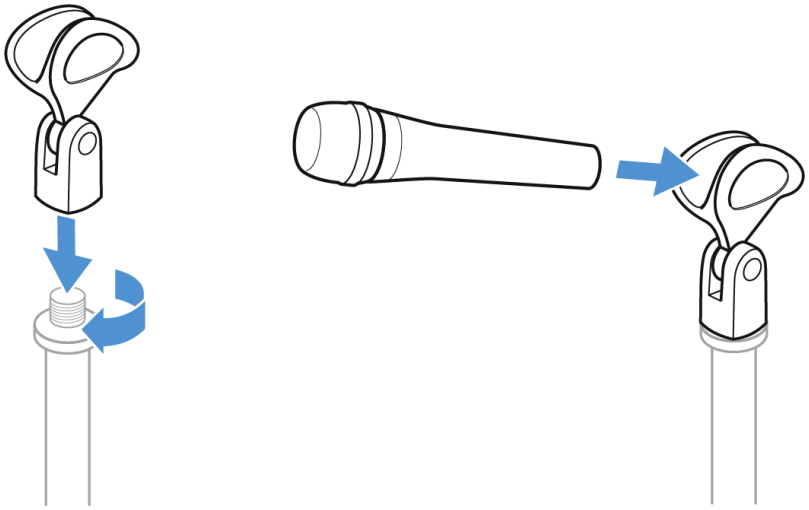
2 XLR-3 connector

- see Connecting the microphone

Installation

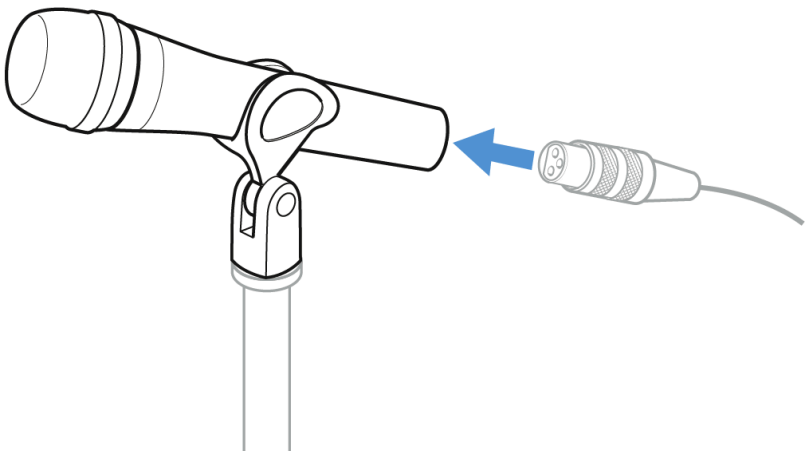
Attaching the microphone

- Screw the microphone clamp to a stand.
- Place the microphone with its back end into the microphone clamp.
- Orient the microphone together with the microphone clamp.



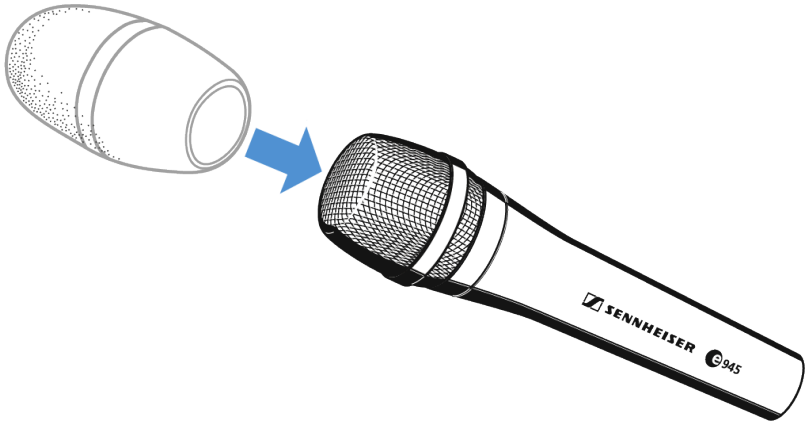
Connecting the microphone

- Connect the XLR-3 socket of the microphone cable (optional accessories) to the XLR-3 socket of the microphone.



Using the windshield

- Place the MZW 4032 (optional accessories) windshield over the microphone head.

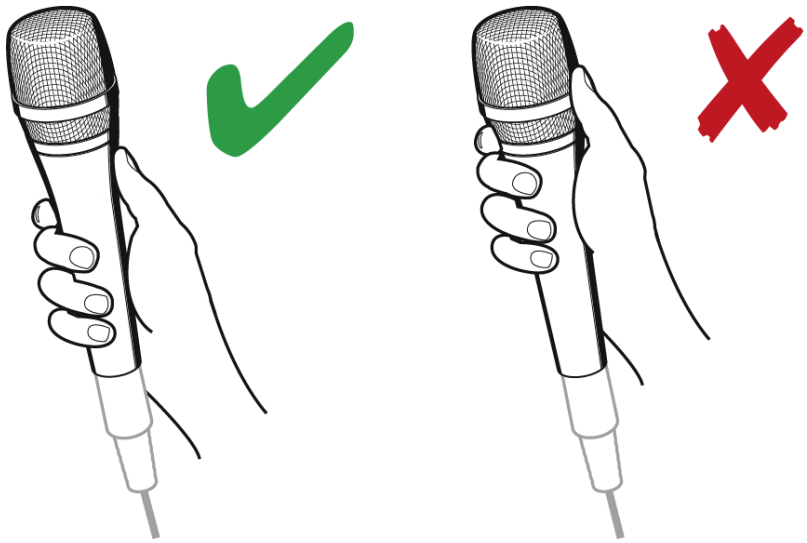


Operation

Holding the microphone

> **i** If you cover the microphone head during transmission, this will change the pick-up pattern of the microphone and consequently the sound.

- Only hold the microphone by its body.



Positioning the microphone

- It is vital to observe the following notes:
  - Position A: Very little crosstalk from other sound sources.
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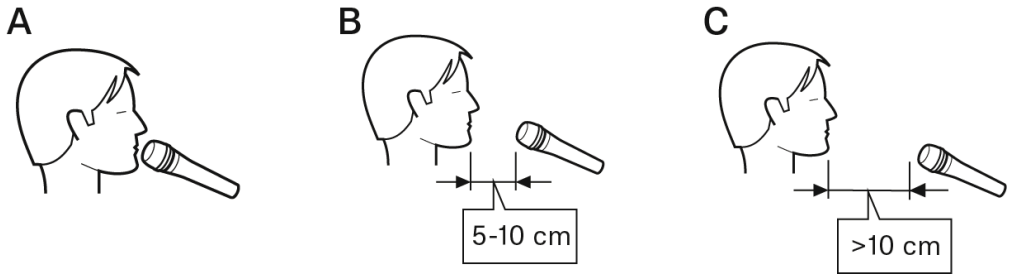
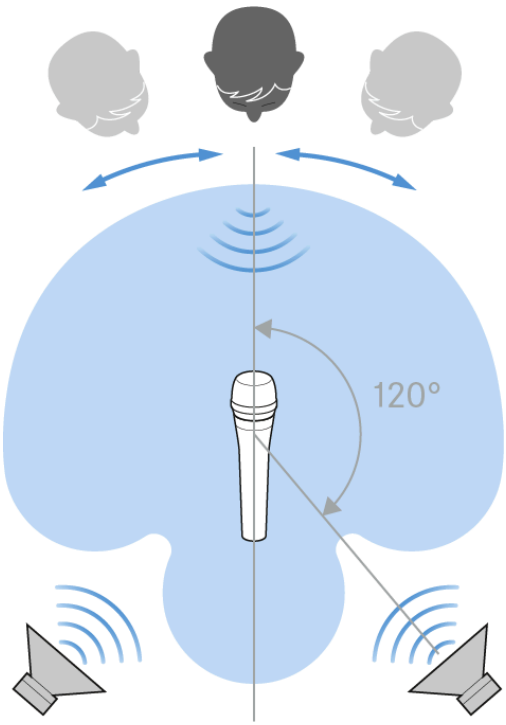
  - Position C: Higher crosstalk from other sound sources.
    - Resulting sound: Very little proximity effect (minimal bass boost), more room ambience, indirect sound
- If sibilance occurs: Position the microphone slightly to the side and not directly in front of the mouth.



Positioning the monitor loudspeakers

- To prevent feedback and crosstalk, postion your monitor loudspeakers in the angle area of the highest cancellation of the microphone (approx. 120°).

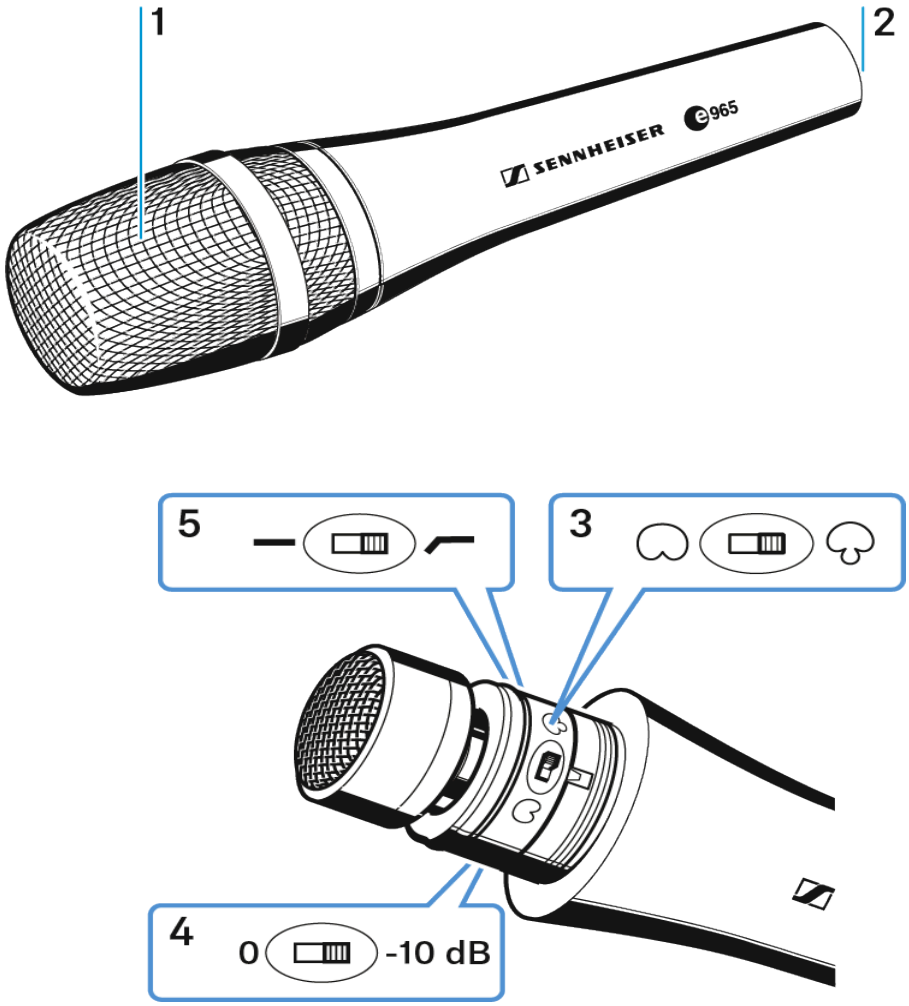


e 965

Related information

Product overview
Installation
Operation

Product overview



1 Sound inlet basket

- see Using the windshield

2 XLR-3 connector

- see Connecting the microphone

3 Directivity switch 

- see Adjusting the pick-up pattern

4 Sensitivity switch -10 dB 0 dB

- see Adjusting the attenuation

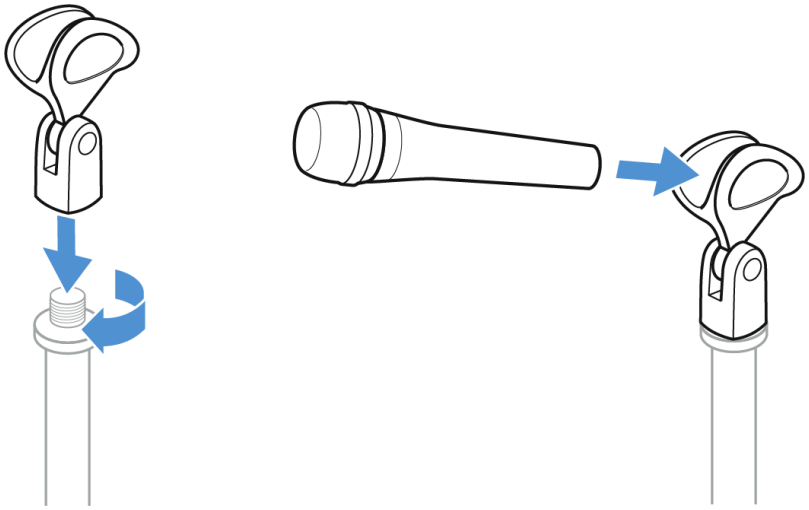
5 Bass roll-off switch 

- see Adjusting the low-cut/roll-off filter

Installation

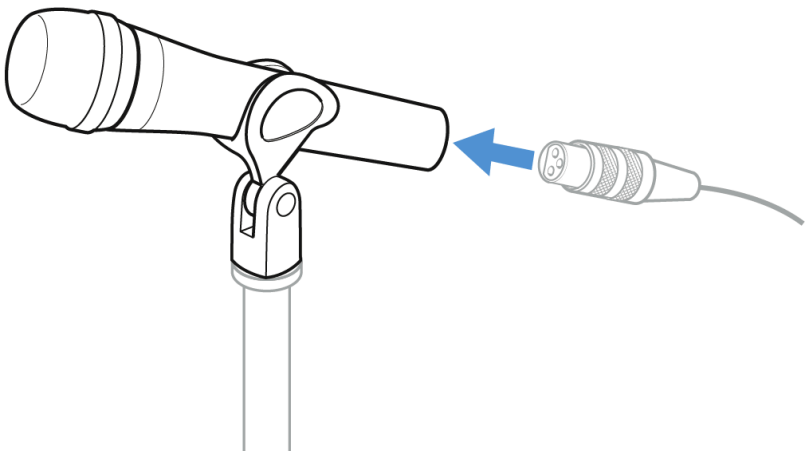
Attaching the microphone

- Screw the microphone clamp to a stand.
- Place the microphone with its back end into the microphone clamp.
- Orient the microphone together with the microphone clamp.



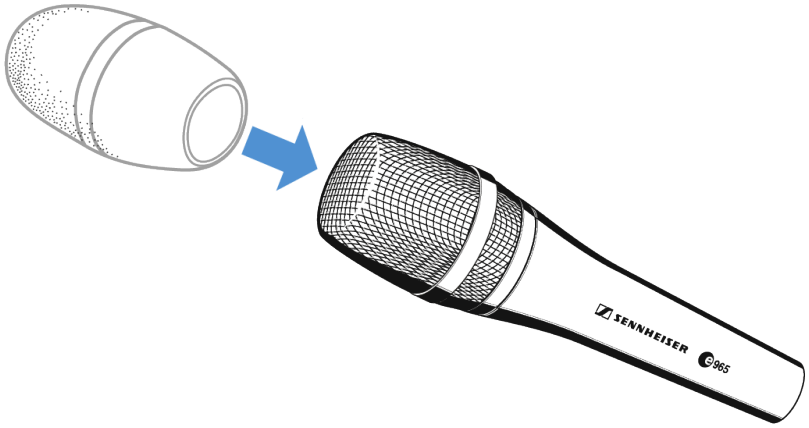
Connecting the microphone

- Connect the XLR-3 socket of the microphone cable (optional accessories) to the XLR-3 socket of the microphone.



Using the windshield

- Place the MZW 4032 (optional accessories) windshield over the microphone head.



Operation

Holding the microphone

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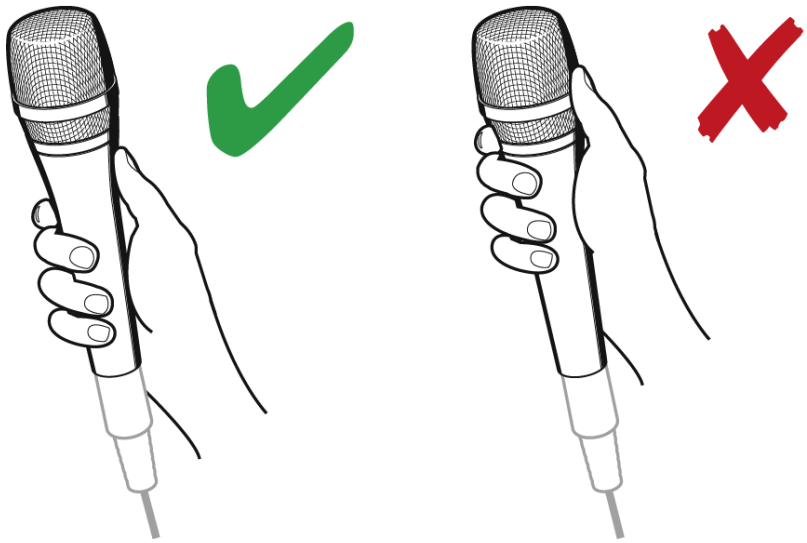
- Only hold the microphone by its body.



Positioning the microphone

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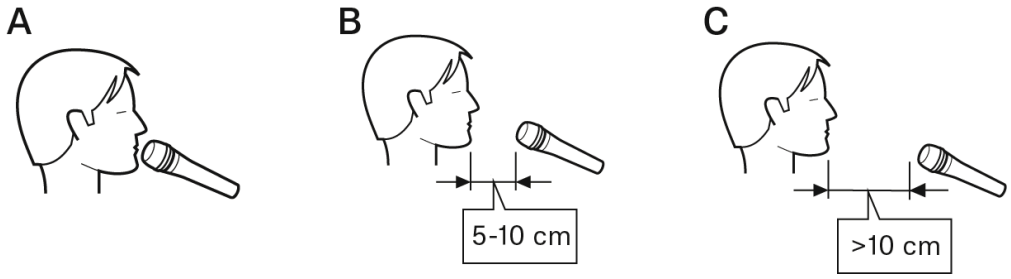
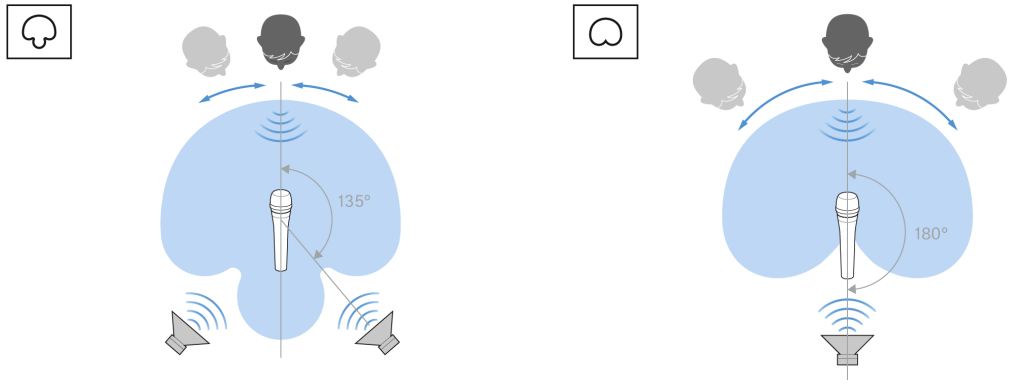


Positioning the monitor loudspeakers

- To prevent feedback and crosstalk, postion your monitor loudspeakers in the angle area of the highest cancellation of the microphone (cardioid: 180°; super-cardioid: 135°).



Adjusting the pick-up pattern

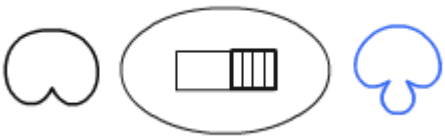
NOTICE

Danger of damage to the microphone!

The switches on the microphone can be damaged if you try to operate them using tools.

- Only operate the switches on the microphone using your fingers.

- Unscrew the sound inlet basket.
- Set the directivity switch to the desired position:
  - Cardioid
    - A cardioid pick-up pattern also picks up sound from the sides. This pattern is good for picking up several vocalists at once, e.g. a choir or ensemble.
  - Super-cardioid
    - A super-cardioid pickup pattern reduces pick-up from the sides. This pattern is therefore good for picking up individual an individual sound source in a noisy environment. Crosstalk from other instruments on stage is drastically reduced.



Adjusting the attenuation

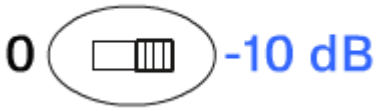
NOTICE

Danger of damage to the microphone!

The switches on the microphone can be damaged if you try to operate them using tools.

- Only operate the switches on the microphone using your fingers.

- Unscrew the sound inlet basket.
- Set the pad switch to the desired position:
  - 0 dB
    - No attenuation
  - -10 dB
    - Reduces the sensitivity of the microphone capsule by 10 dB
    - Increases the maximum sound pressure level



Adjusting the low-cut/roll-off filter

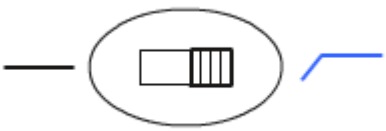
NOTICE

Danger of damage to the microphone!

The switches on the microphone can be damaged if you try to operate them using tools.

- Only operate the switches on the microphone using your fingers.

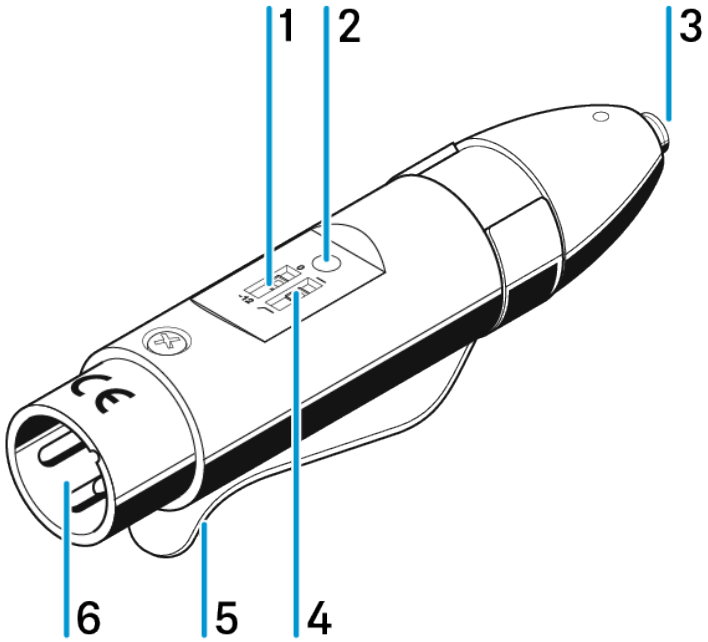
- Unscrew the sound inlet basket.
- Set the low-cut/roll-off switch to the desired position:
  - —
    - Off, linear frequency response
  - ⌐
    - Eliminates low-frequency noise such as impact sound, fan noise, etc.



MZA 900 P

Related information
Product overview
Installation
Operation

Product overview



1 Pre-attenuation switch
- see Switchable pre-attenuation

2 LED
- see LED indication

3 3.5 mm jack plug
- see Connecting the microphone

4 Roll-off filter switch
- see Switchable roll-off filter

5 Belt clip

- see Attaching to clothing

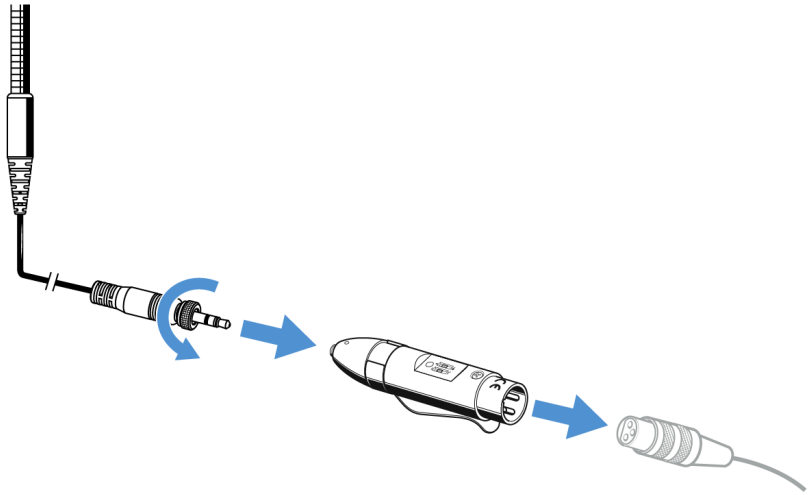
6 XLR output

- see Connecting the microphone

Installation

Connecting the microphone

- Connect the jack plug of the microphone e 908 to the socket of the MZA 900 P.
- Tighten the coupling ring.
- Plug the XLR cable into the XLR output.



Attaching to clothing

- Using the belt clip, you can unobtrusively attach the MZA 900 P to clothing (e.g. belt, waistband).

Operation

LED indication

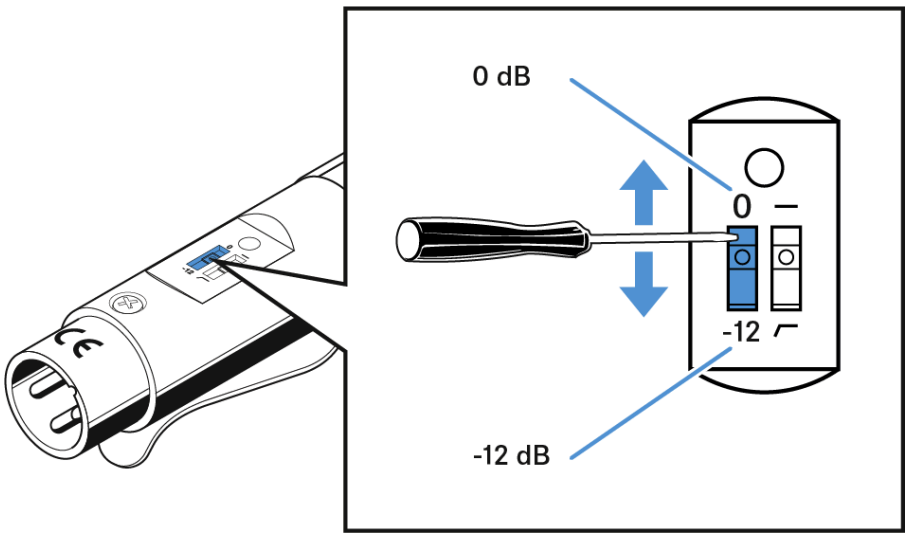
The MZA 900 P features a two-colour LED.

- LED lights up in green:
  - The MZA 900 P is properly powered and there is no over-modulation (normal operation).
- LED llights up in red
  - A flashing red LED at high sound pressure levels indicates over-modulation of the microphone or overloading of the MZA 900 P's output.
- LED in constant red
  - A constant red LED indicates a defective cable.

Switchable pre-attenuation

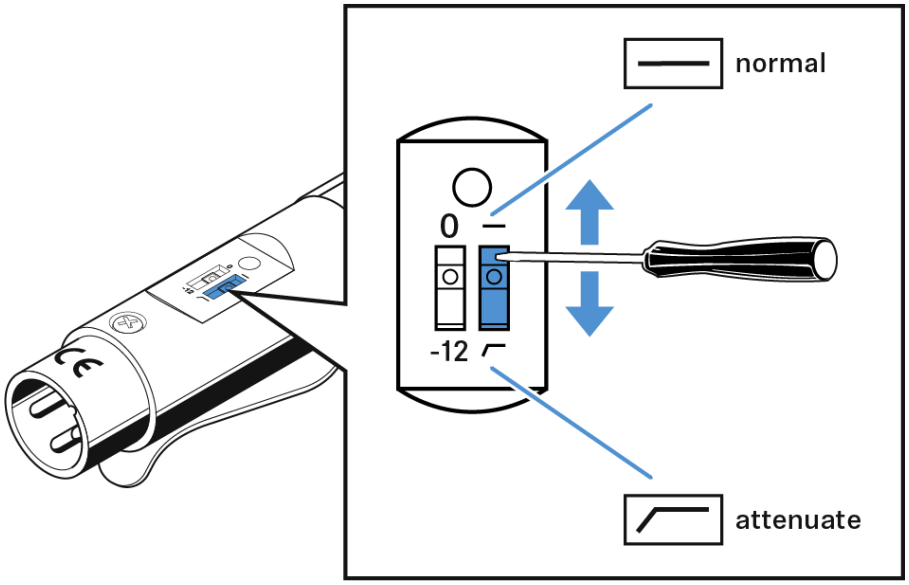
The gain can be reduced by 12 dB. This is recommended when the subsequent microphone input is overmodulated or when the MZA 900 P's output is strongly biassed by the subsequent device, e.g. due to high sound pressure levels from drums, brass instruments, etc.

Please note that when operating the MZA 900 P on 12V phantom powering, its output is considerably biassed by the power supply. If this is the case, and when high sound pressure levels occur, the pre-attenuation should also be switched on.



Switchable roll-off filter

The roll-off filter allows the MZA 900 P to be adapted to Sennheiser HSP and clip-on microphones. With the roll-off filter switched on , the low-frequency signal portions (below 125 Hz) are attenuated, thus increasing speech intelligibility. In addition, pop and wind noise is effectively suppressed.



Using as a cable tester

The MZA 900 P can also be used as a cable tester for XLR microphone cables. For this, there is no need to connect a microphone.

Connect one end of the cable to be tested to a mixing console with activated phantom powering. Connect the other end of the cable to the MZA 900 P.

LED lights up in green

- The cable is OK

LED lights up in red

- Possible errors:
  - One signal wire is broken
  - One signal wire is short-circuited to the shielding

LED does not light up

- Possible errors:
    - Both signal wires are broken
    - The shielding is interrupted
    - Both signal wires are short-circuited to the shielding

Cleaning and maintenance

Note the following information when cleaning and maintaining evolution wired series products.

NOTICE

Liquids can damage the electronics of the product

Liquids entering the product housing can cause a short-circuit and damage the electronics.

- Keep all liquids away from the products.
- Do not use any solvents or cleansing agents.
- Disconnect the mains-operated products from the power supply system and remove rechargeable batteries and batteries (if present) before you begin cleaning.
- Clean all products only with a soft, dry cloth.

- Note the special cleaning instructions below for the following products.

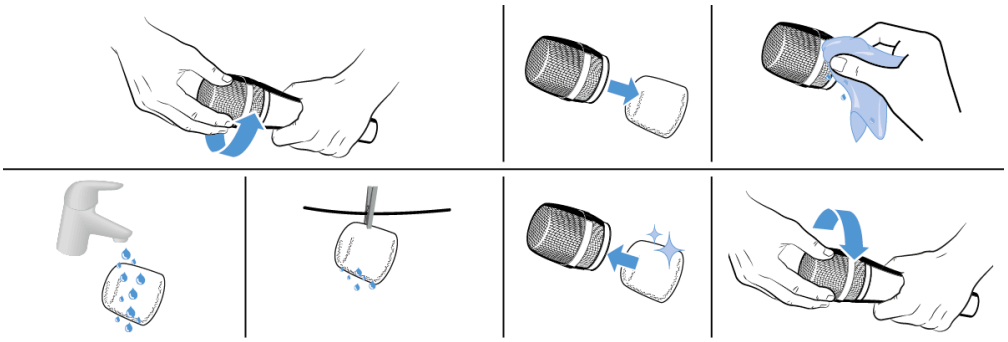
Cleaning the sound inlet basket of the microphone module

i Applies to:

- e 602 II
- e 825-S, e 835/e 835-S, e 845/e 845-S, e 865/e 865-S
- e 902, e 935, e 945, e 965

- Unscrew the sound inlet basket.
- Remove the foam insert from the sound inlet basket.
- Use a slightly damp cloth to clean the sound inlet basket from the inside and ouside.
- If necessary, clean the foam insert with a mild detergent or replace the foam insert.
- Dry the foam insert.

- Reinsert the foam insert.
- Replace the sound inlet basket on the microphone head and screw it tight.



4. Specifications

All specifications at a glance.

e 602 II

Specifications

Transducer principle

- dynamic

Frequency response

- 20 - 16,000 Hz

Pick-up pattern

- cardioid

Sensitivity (free field, no load)

- 0.9 mV/Pa (at 50 Hz)
- 0.25 mV/Pa (at 1 kHz)

Nominal impedance (at 1 kHz)

- 350 Ω

Min. terminating impedance

- 1 kΩ

Connector

- XLR-3

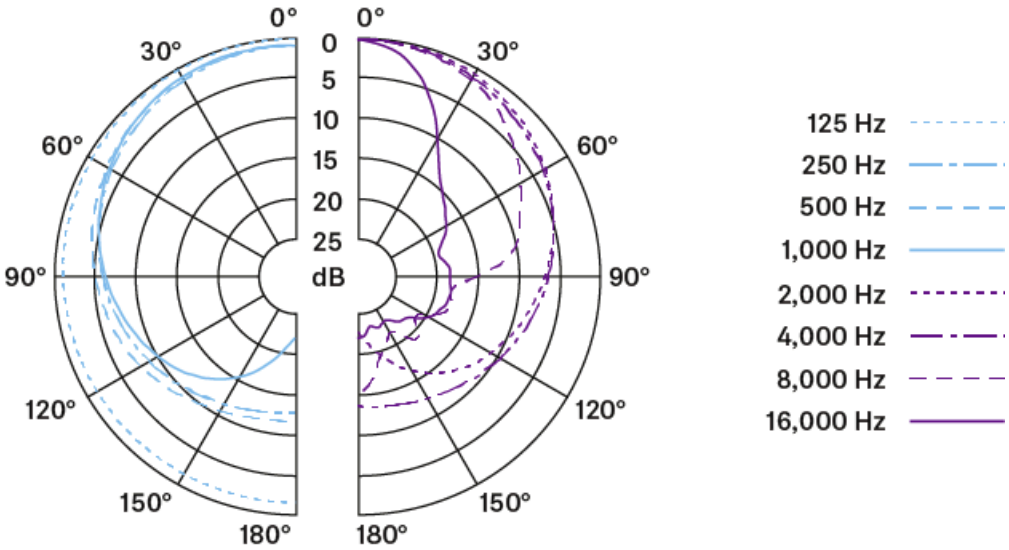
Dimensions

- Ø 60 x 153 mm

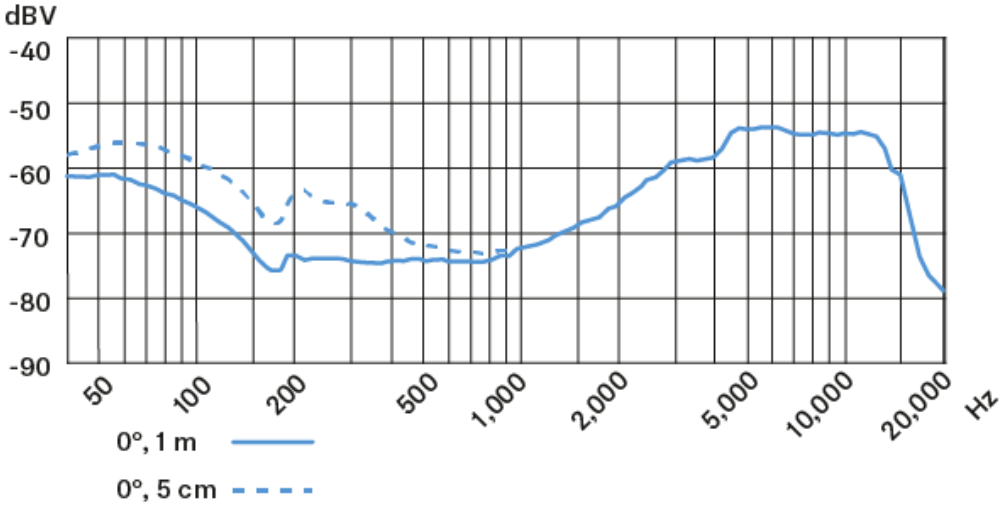
Weight

- 318 g

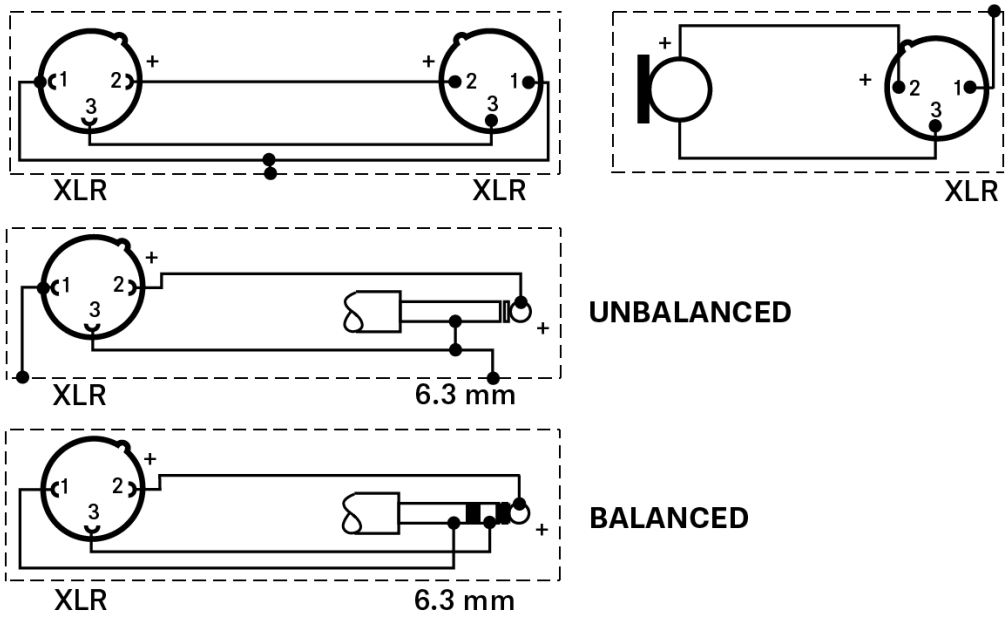
Polar pattern



Frequency response



Connector assignment



e 604

Specifications

Transducer principle

- dynamic

Frequency response

- 40 - 18,000 Hz

Pick-up pattern

- cardioid

Sensitivity (free field, no load)

- 1.8 mV/Pa

Nominal impedance (at 1 kHz)

- 350 Ω

Min. terminating impedance

- 1 kΩ

Connector

- XLR-3

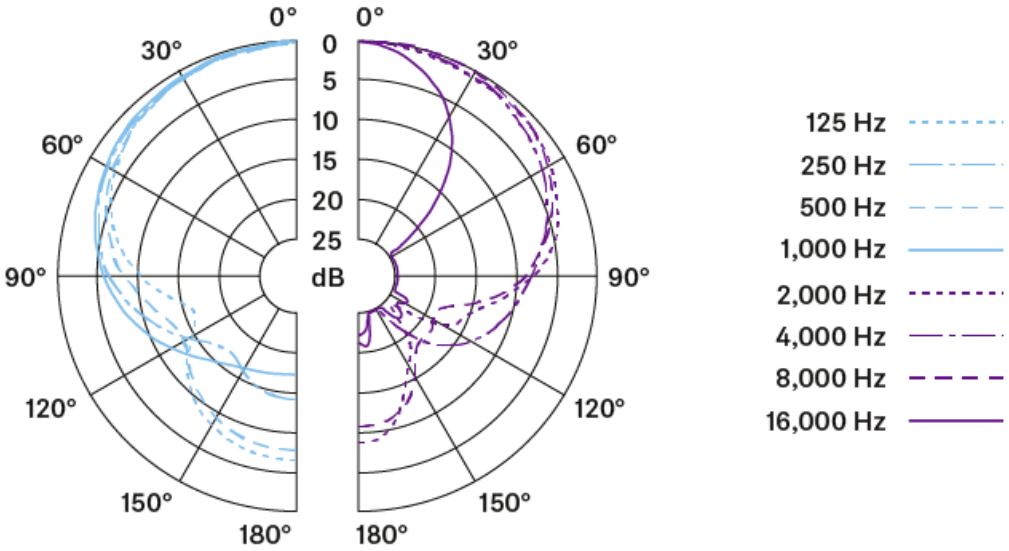
Dimensions

- Ø 33 x 59 mm

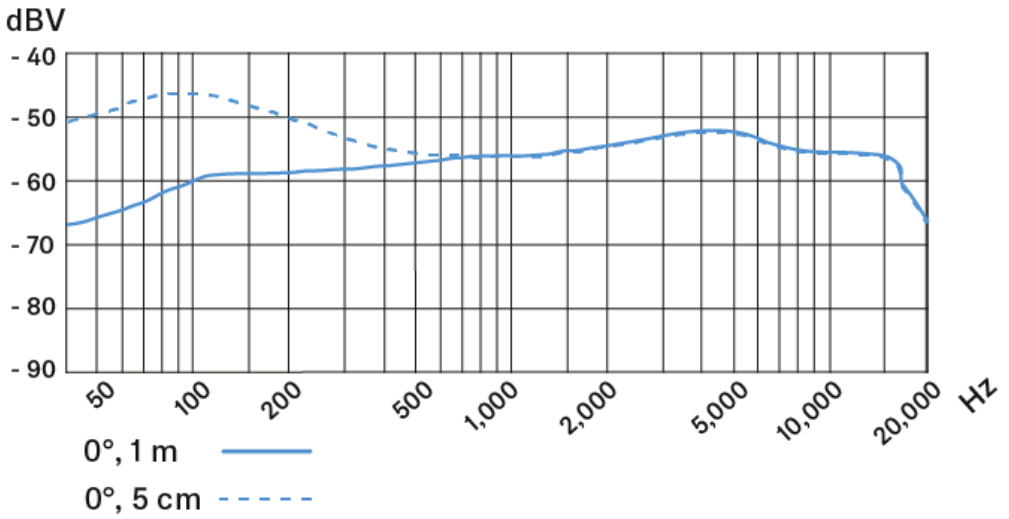
Weight

- 60 g

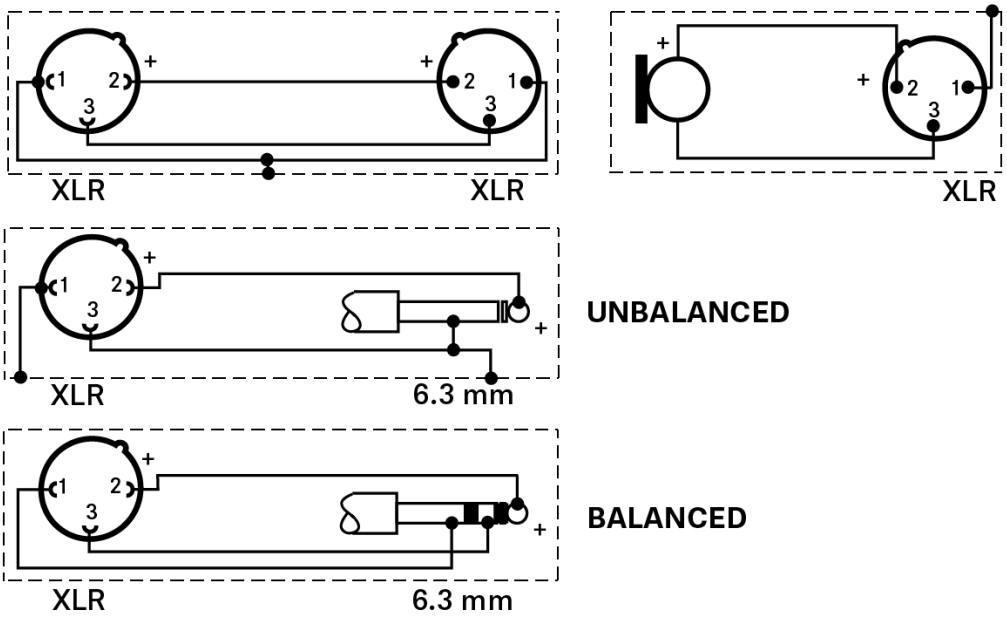
Polar pattern



Frequency response



Connector assignment



e 608

Specifications

Transducer principle

- dynamic

Frequency response

- 40 - 16,000 Hz

Pick-up pattern

- Supercardioid

Sensitivity (free field, no load)

- 0.8 mV/Pa

Nominal impedance (at 1 kHz)

- 250 Ω

Min. terminating impedance

- 1 kΩ

Connector

- XLR-3

Temperature range

- 0 °C to +40 °C

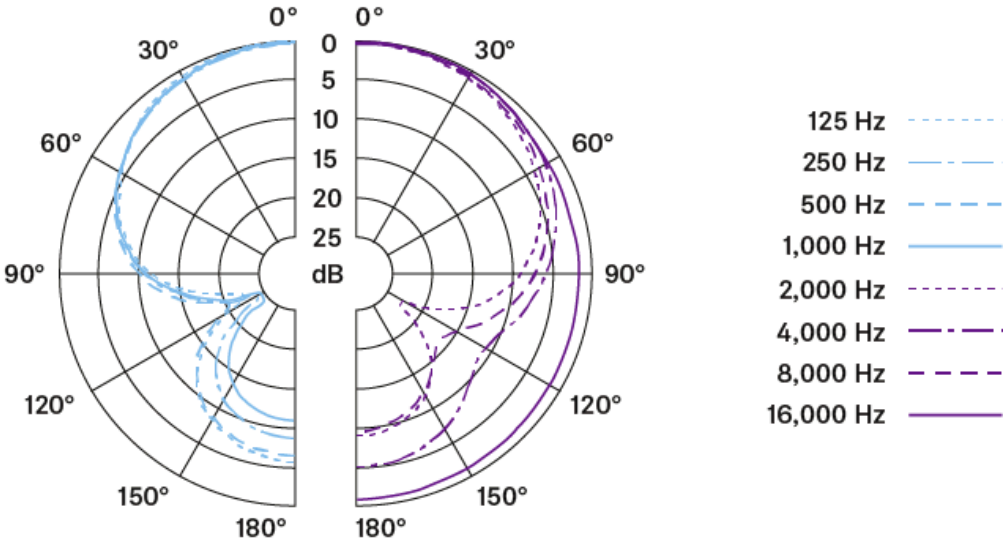
Dimensions

- Ø 17 x 185 mm

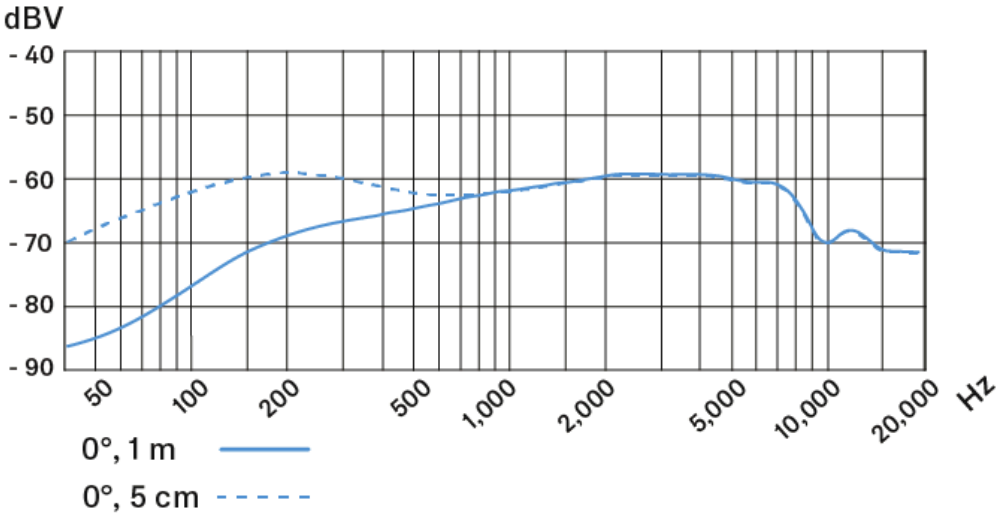
Weight

- 20 g

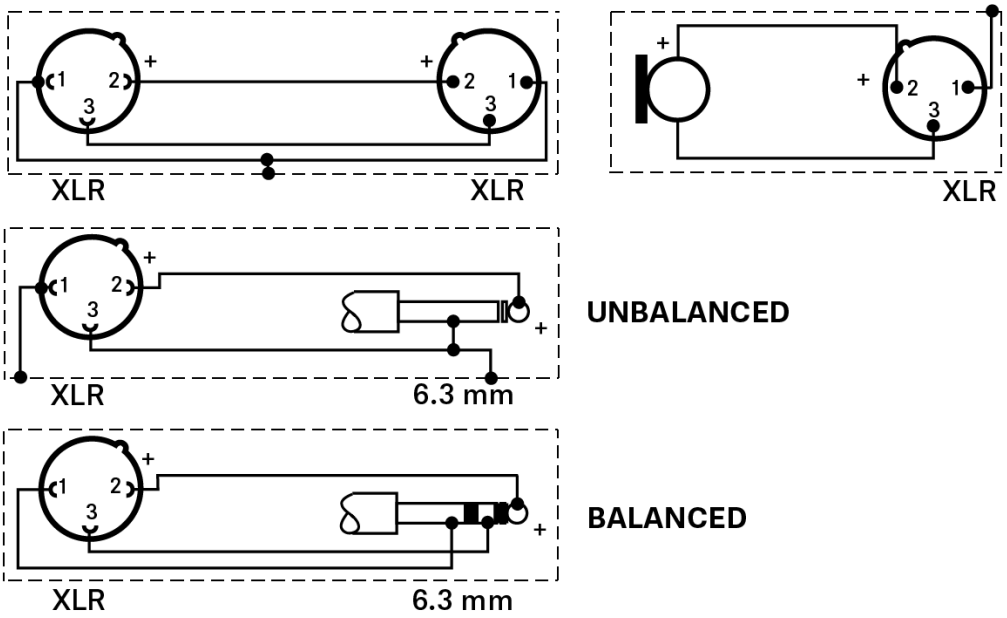
Polar pattern



Frequency response



Connector assignment



e 609 silver

Specifications

Transducer principle

- dynamic

Frequency response

- 40 - 15,000 Hz

Pick-up pattern

- Supercardioid

Sensitivity (free field, no load)

- 1.5 mV/Pa

Nominal impedance (at 1 kHz)

- 350 Ω

Min. terminating impedance

- 1 kΩ

Connector

- XLR-3

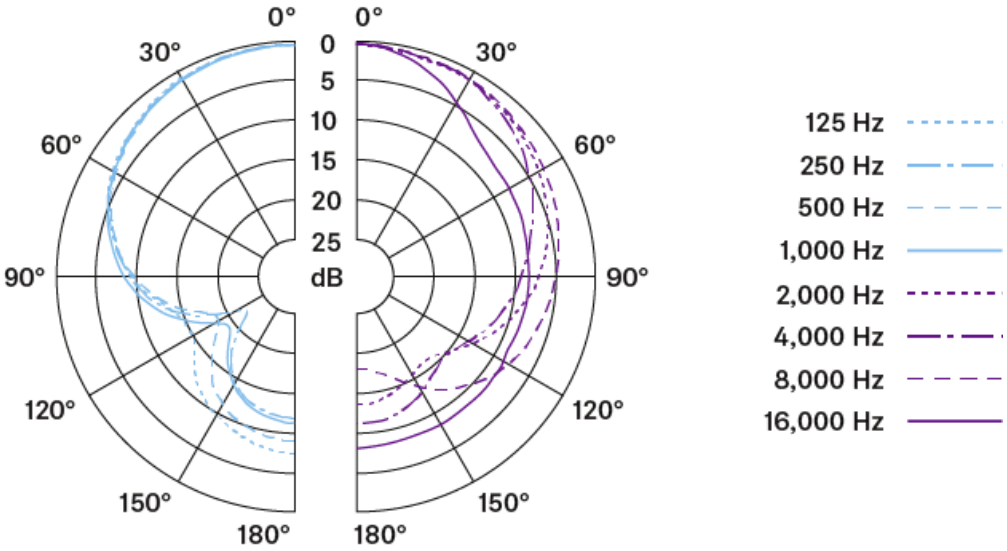
Dimensions

- 55 x 34 x 134 mm

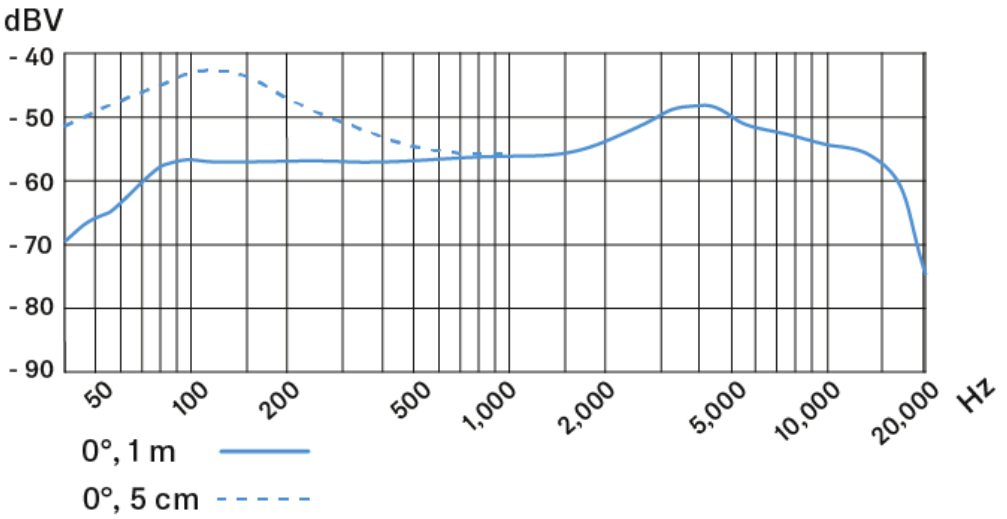
Weight

- 140 g

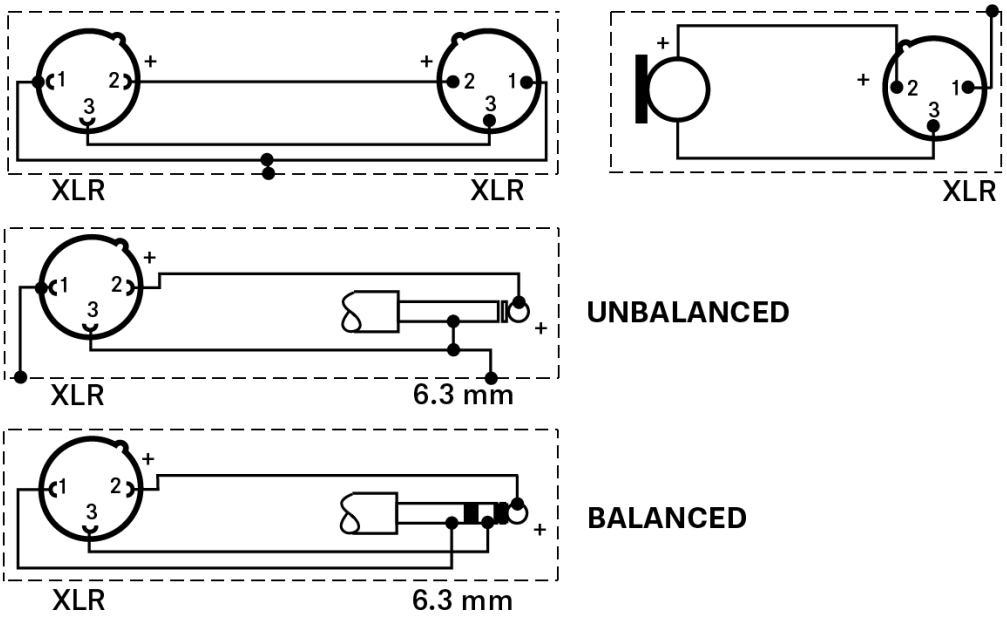
Polar pattern



Frequency response



Connector assignment



e 614

Specifications

Transducer principle

- pre-polarised condenser microphone

Frequency response

- 40 - 20,000 Hz

Pick-up pattern

- Supercardioid

Sensitivity (free field, no load)

- 3 mV/Pa

Nominal impedance (at 1 kHz)

- 50 Ω

Min. terminating impedance

- 1 kΩ

Max. sound pressure level (at 1 kHz)

- 139 dB

Equivalent noise level

- A-weighted: 24 db(A)
- CIIR-weighted: 35 dB

Phantom powering

- 12 - 48 V

Connector

- XLR-3

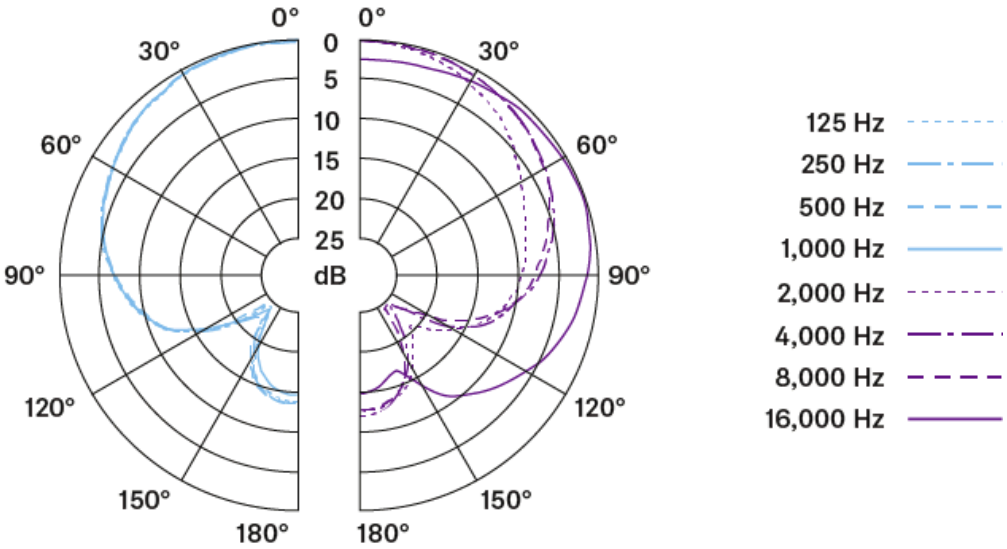
Dimensions

- Ø 20 x 100 mm

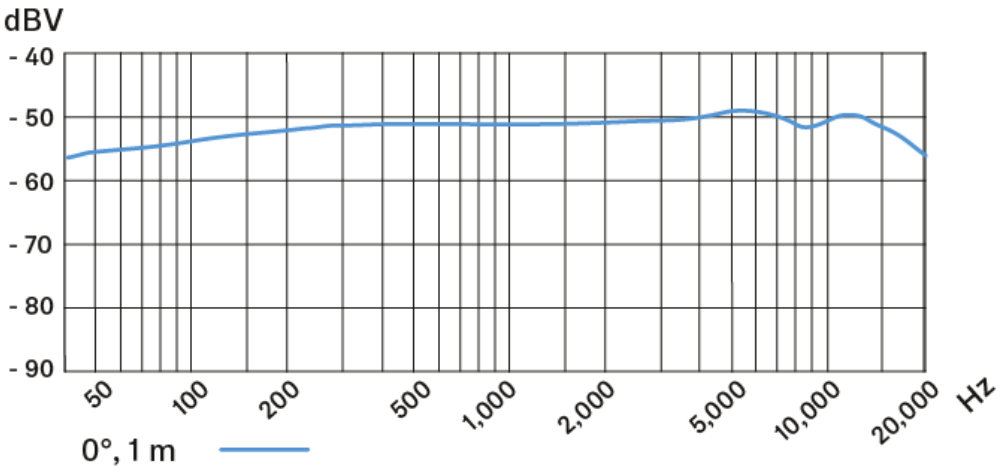
Weight

- 93 g

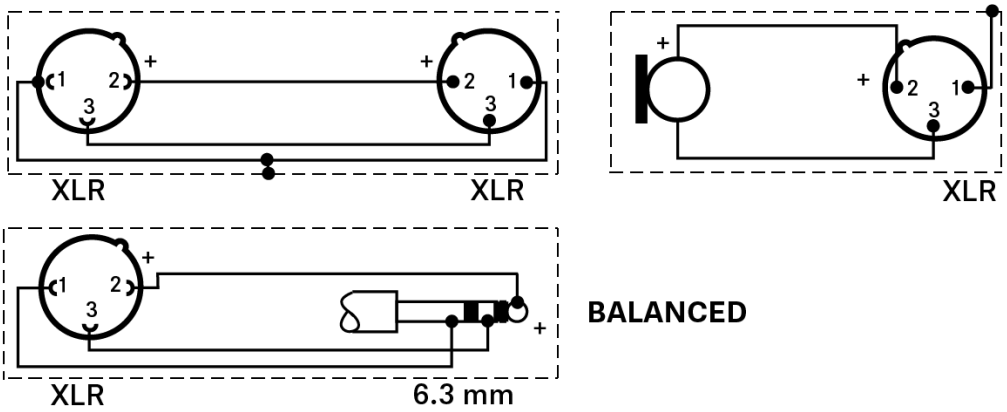
Polar pattern



Frequency response



Connector assignment



BALANCED

e 825-S

Specifications

Transducer principle

- dynamic

Frequency response

- 80 - 15,000 Hz

Pick-up pattern

- cardioid

Sensitivity (free field, no load)

- 1.5 mV/Pa

Nominal impedance (at 1 kHz)

- 350 Ω

Min. terminating impedance

- 1 kΩ

Connector

- XLR-3

Temperature range

- 0 °C to +40 °C

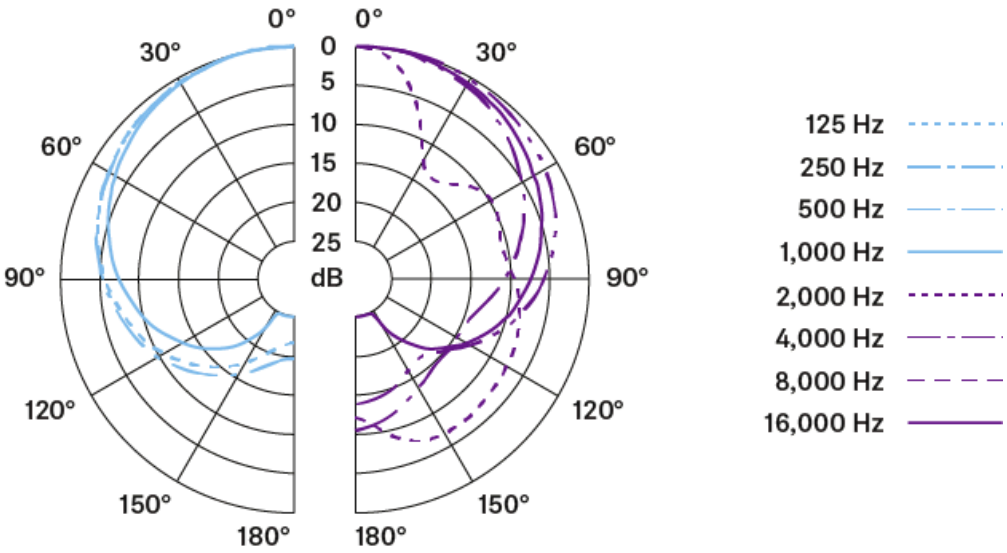
Dimensions

- Ø 48 x 180 mm

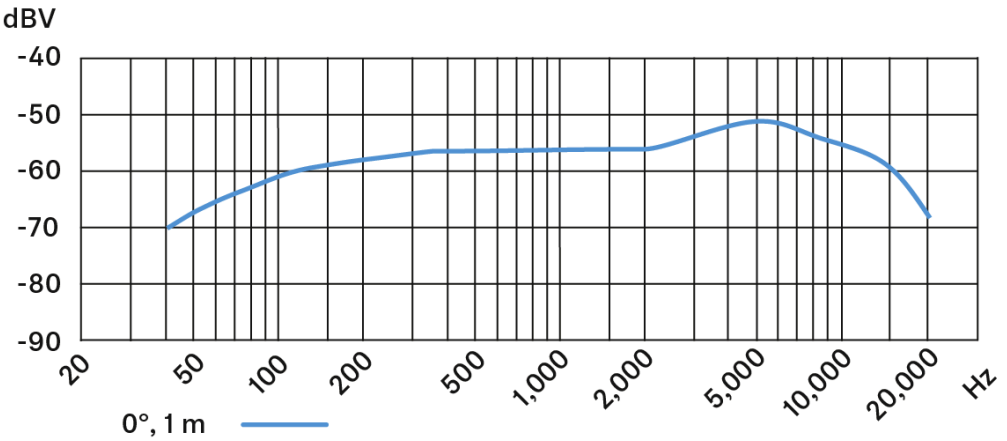
Weight

- 330 g

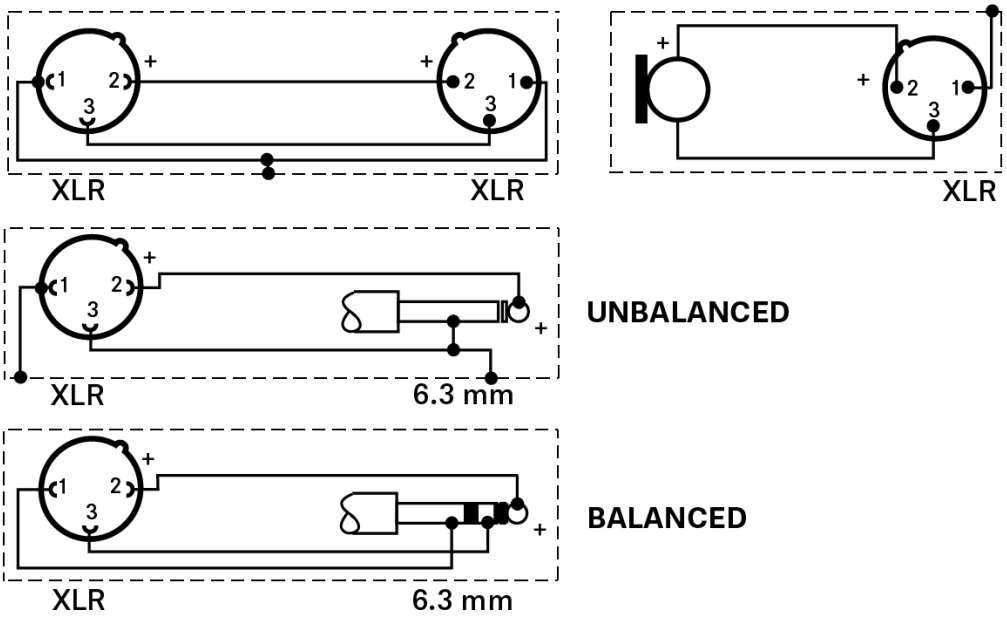
Polar pattern



Frequency response



Connector assignment



e 835-S

Specifications

Transducer principle

- dynamic

Frequency response

- 40 - 16,000 Hz

Pick-up pattern

- cardioid

Sensitivity (free field, no load)

- 2.7 mV/Pa

Nominal impedance (at 1 kHz)

- 350 Ω

Min. terminating impedance

- 1 kΩ

Connector

- XLR-3

Temperature range

- 0 °C to +40 °C

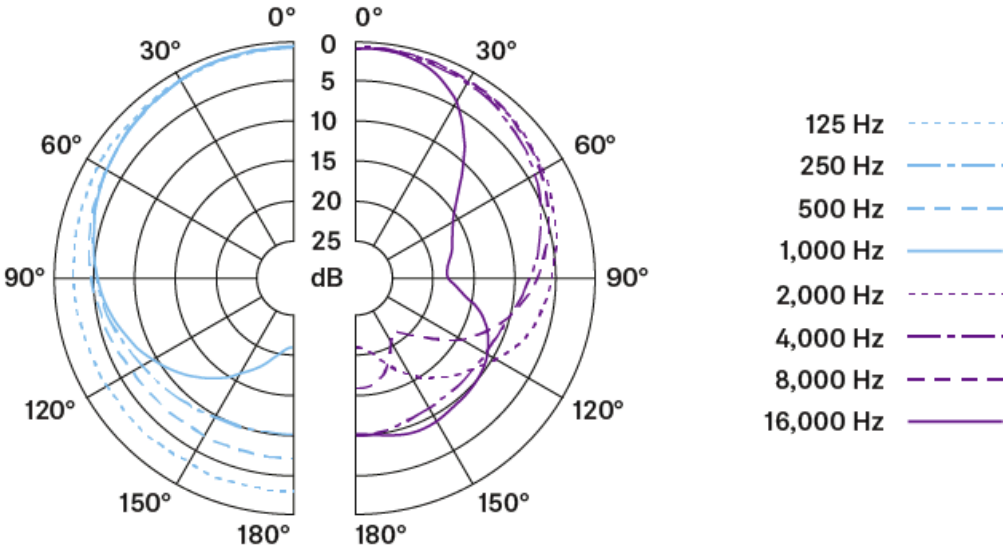
Dimensions

- Ø 48 x 180 mm

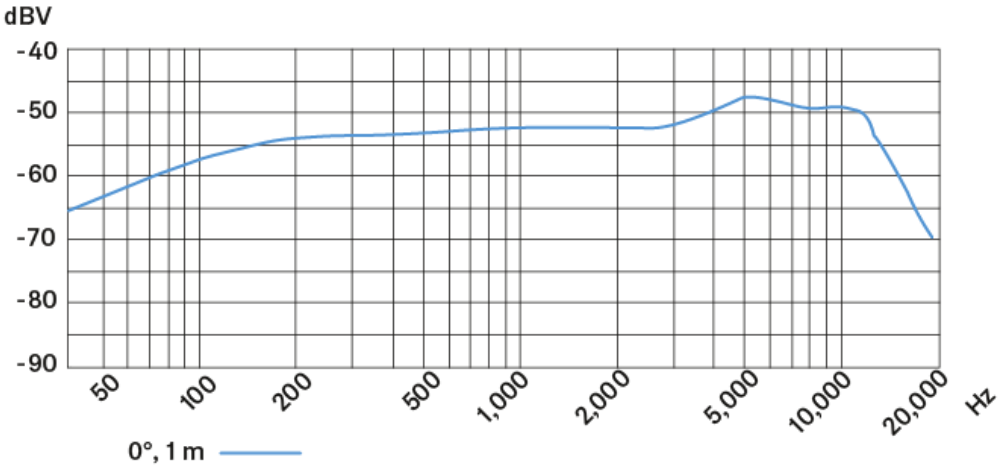
Weight

- 330 g

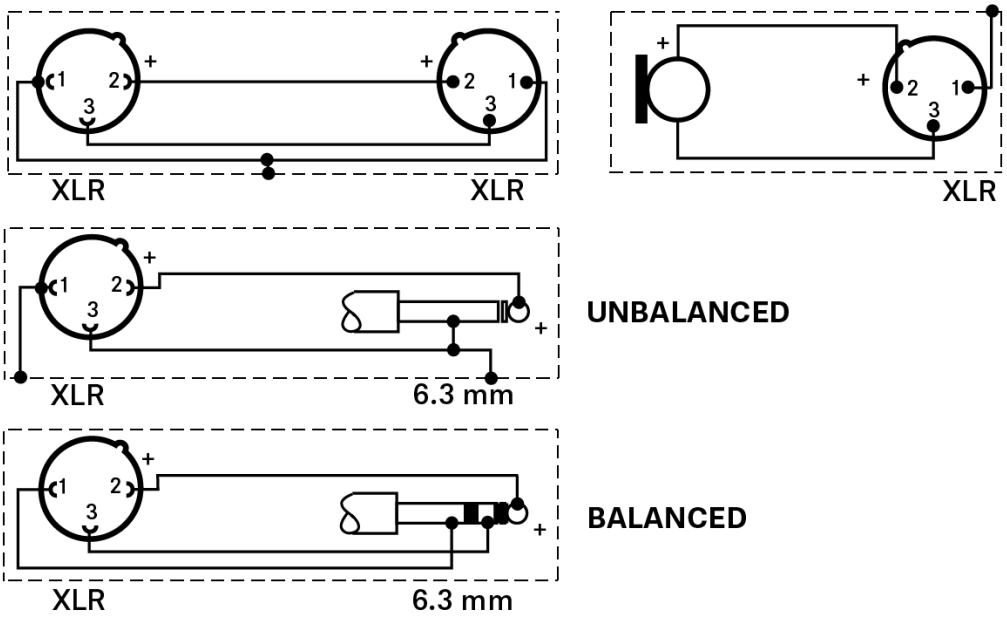
Polar pattern



Frequency response



Connector assignment



e 845-S

Specifications

Transducer principle

- dynamic

Frequency response

- 40 - 16,000 Hz

Pick-up pattern

- Supercardioid

Sensitivity (free field, no load)

- 1.8 mV/Pa

Nominal impedance (at 1 kHz)

- 350 Ω

Min. terminating impedance

- 1 kΩ

Connector

- XLR-3

Temperature range

- 0 °C to +40 °C

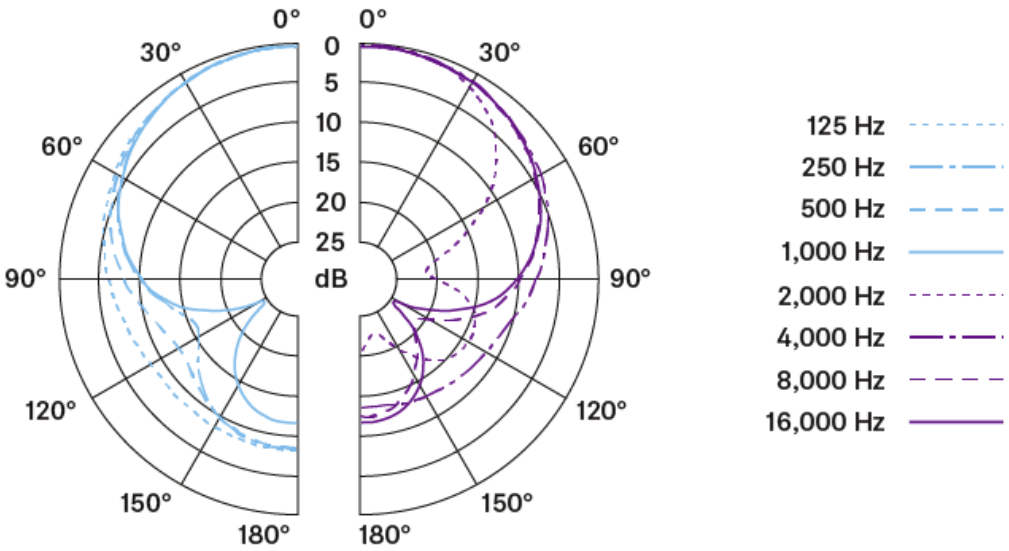
Dimensions

- Ø 46 x 185 mm

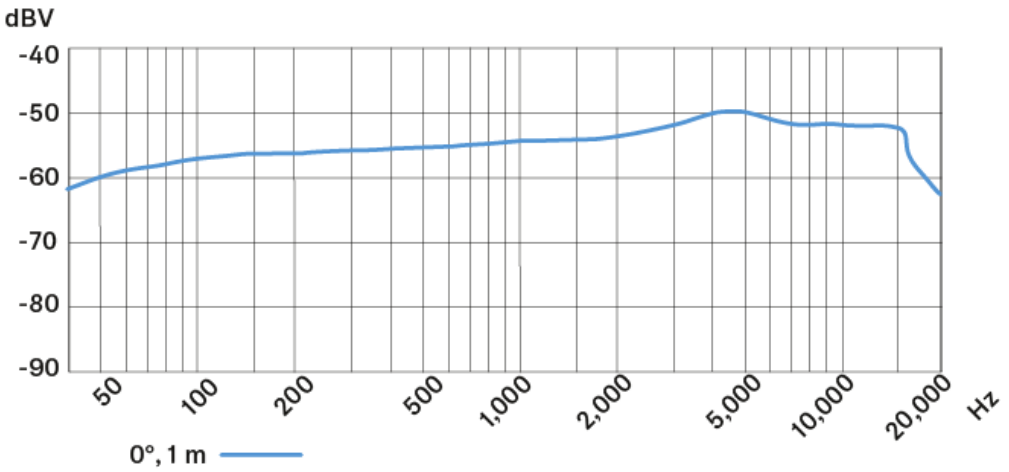
Weight

- 330 g

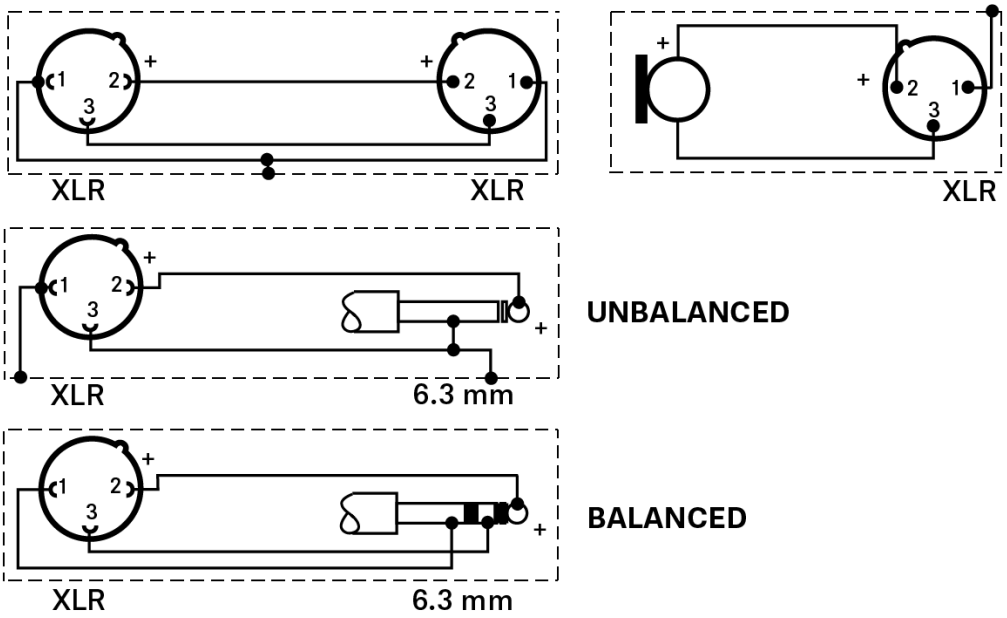
Polar pattern



Frequency response



Connector assignment



e 865-S

Specifications

Transducer principle

- pre-polarised condenser microphone

Frequency response

- 40 - 20,000 Hz

Pick-up pattern

- Supercardioid

Sensitivity (free field, no load)

- 3 mV/Pa

Nominal impedance (at 1 kHz)

- 200 Ω (symmetrisch)

Min. terminating impedance

- 1 kΩ

Max. sound pressure level (at 1 kHz)

- 150 dB

Phantom powering

- 12 - 48 V

Connector

- XLR-3

Temperature range

- 0 °C to +40 °C

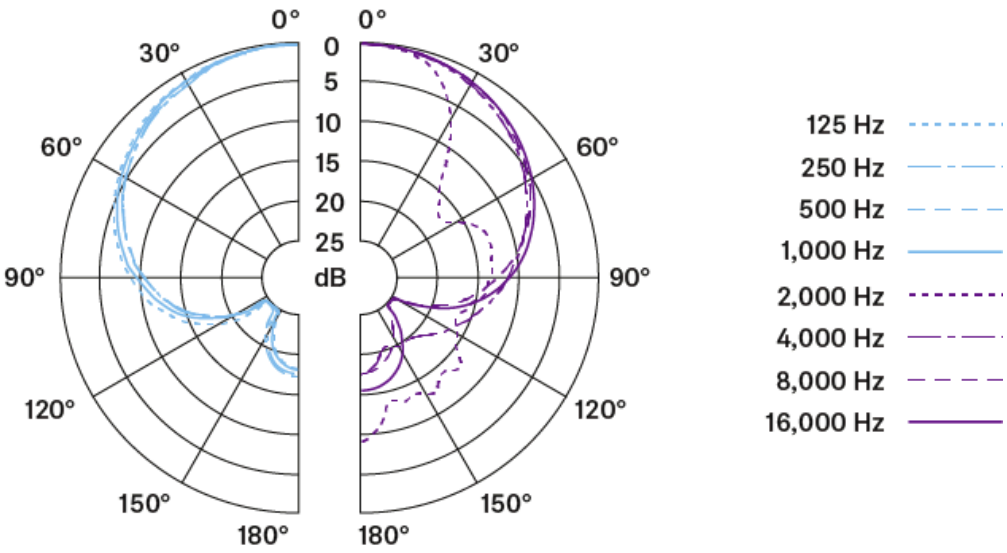
Dimensions

- Ø 47 x 193 mm

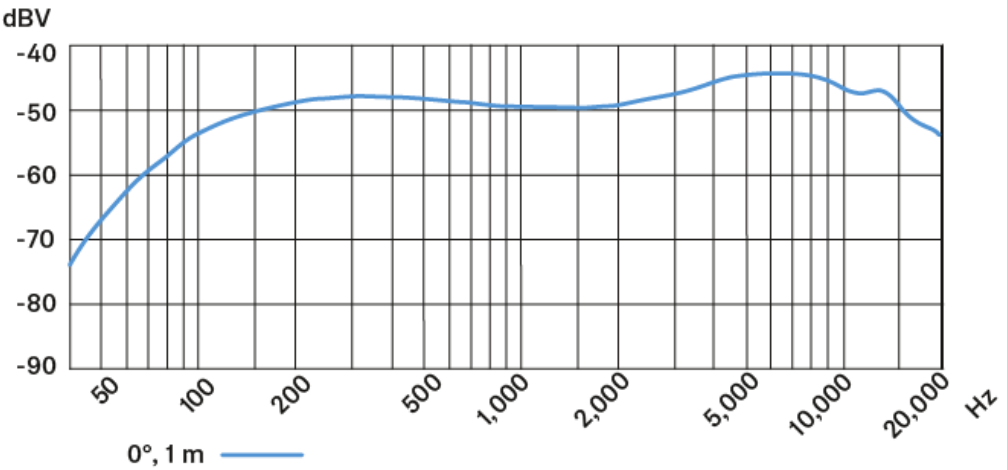
Weight

- 311 g

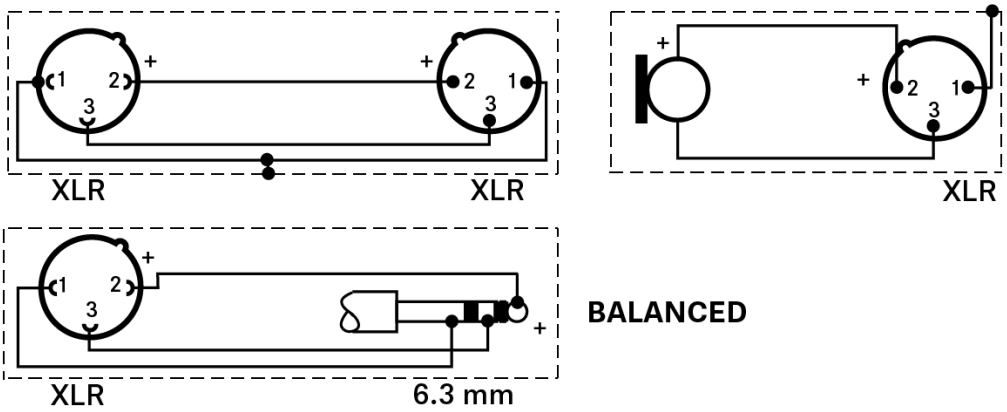
Polar pattern



Frequency response



Connector assignment



BALANCED

e 901

Specifications

Transducer principle

- pre-polarised condenser microphone

Frequency response

- 20 - 20,000 Hz

Pick-up pattern

- Halbcardioid

Sensitivity (free field, no load)

- 0.5 mV/Pa

Nominal impedance (at 1 kHz)

- 100 Ω

Min. terminating impedance

- 1 kΩ

Max. sound pressure level (at 1 kHz)

- 154 dB

Phantom powering

- 48 V

Connector

- XLR-3

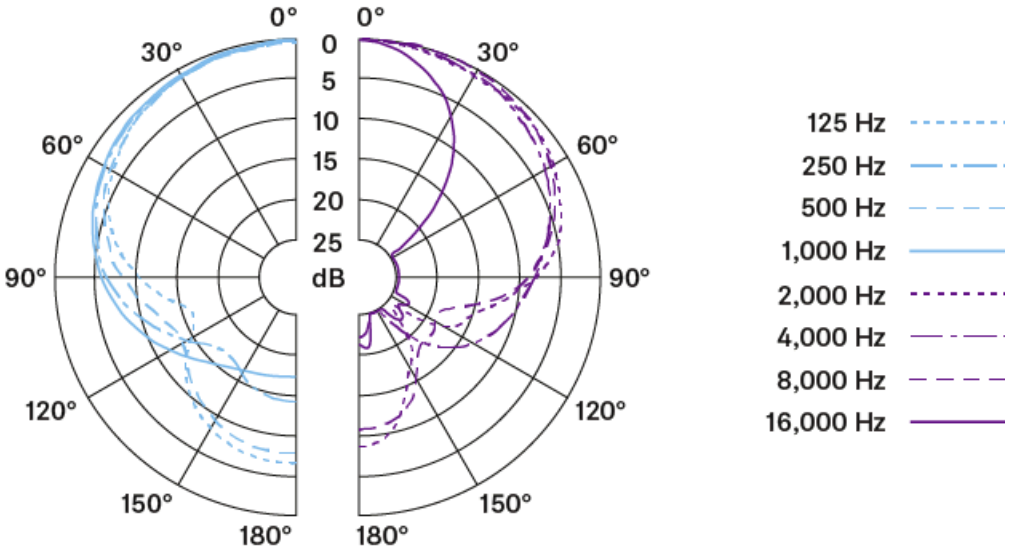
Dimensions

- 126.5 x 105 x 26.5 mm

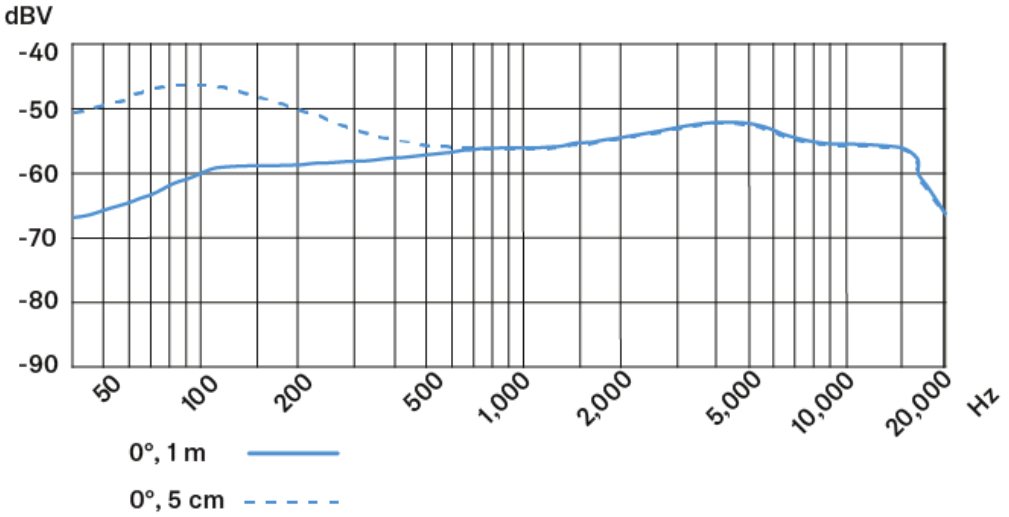
Weight

- 550 g

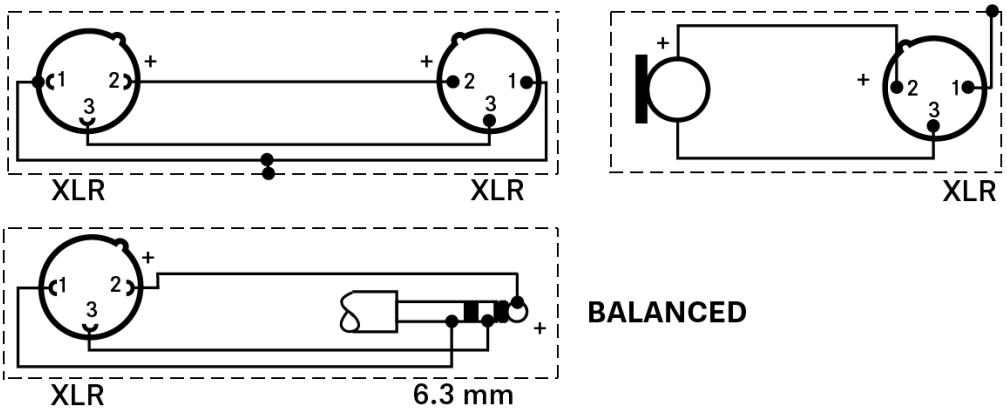
Polar pattern



Frequency response



Connector assignment



BALANCED

e 902

Specifications

Transducer principle

- dynamic

Frequency response

- 20 - 18,000 Hz

Pick-up pattern

- cardioid

Sensitivity (free field, no load)

- 0.6 mV/Pa (at 60 Hz)
- 0.2 mV/Pa (at 1 kHz)

Nominal impedance (at 1 kHz)

- 350 Ω

Min. terminating impedance

- 1 kΩ

Connector

- XLR-3

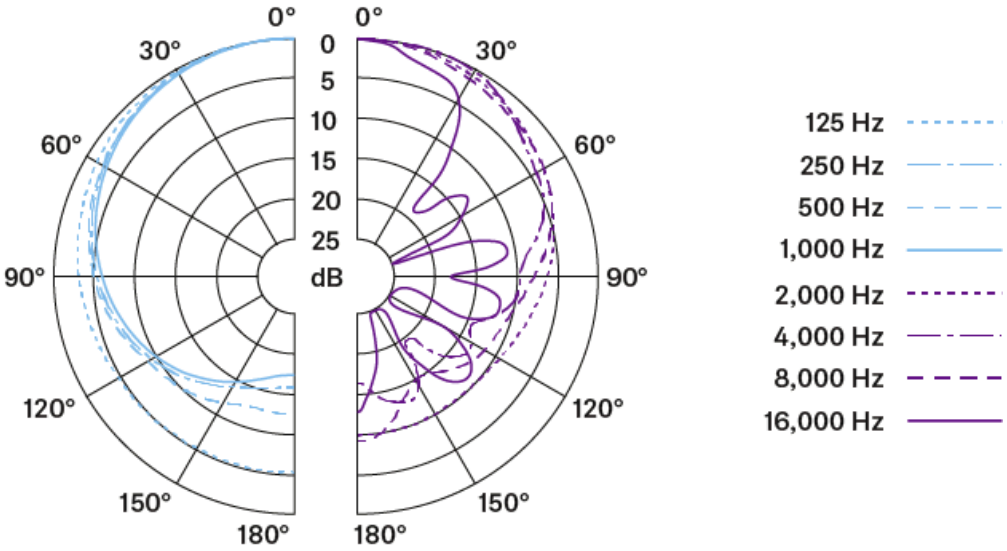
Dimensions

- Ø 60 x 128.5 mm

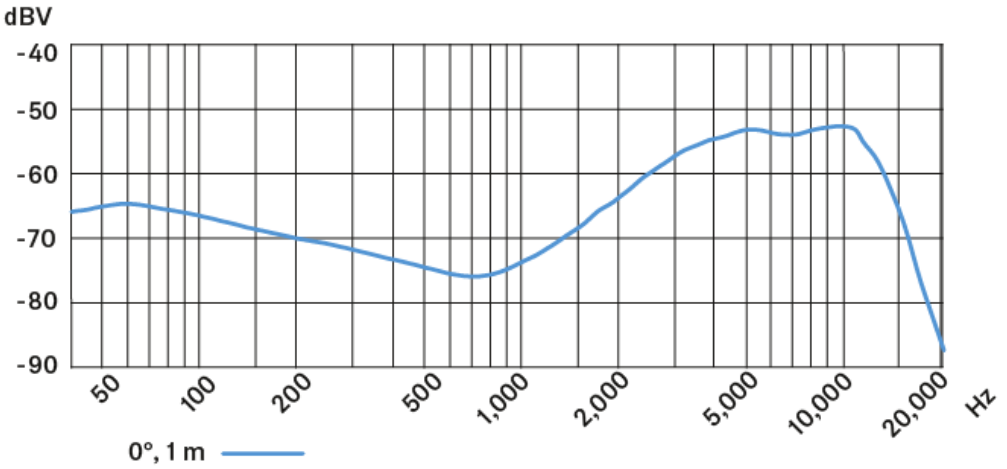
Weight

- 440 g

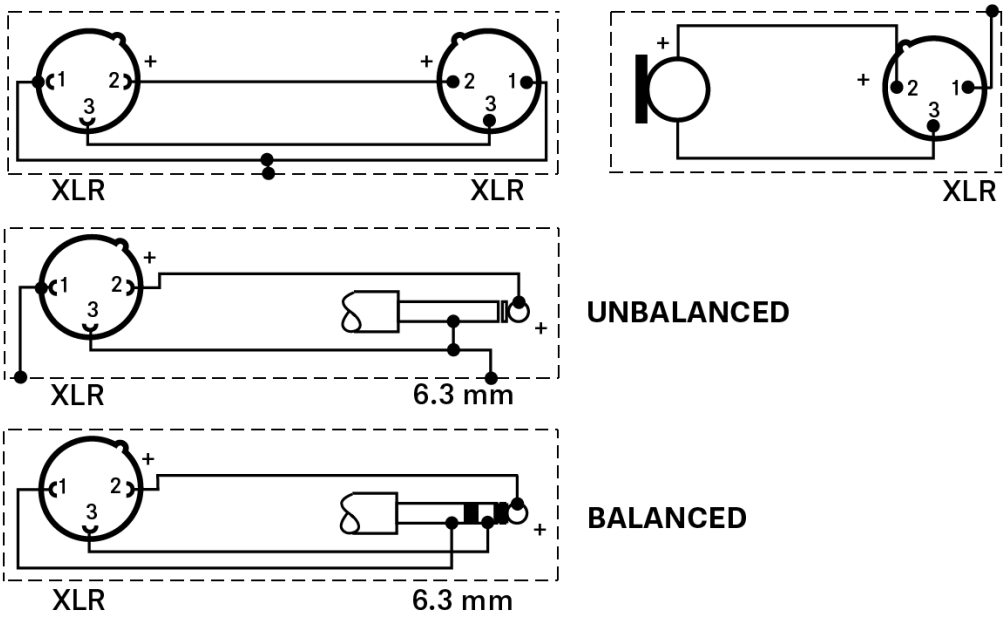
Polar pattern



Frequency response



Connector assignment



e 904

Specifications

Transducer principle

- dynamic

Frequency response

- 40 - 18,000 Hz

Pick-up pattern

- cardioid

Sensitivity (free field, no load)

- 2.0 mV/Pa

Nominal impedance (at 1 kHz)

- 350 Ω

Min. terminating impedance

- 1 kΩ

Connector

- XLR-3

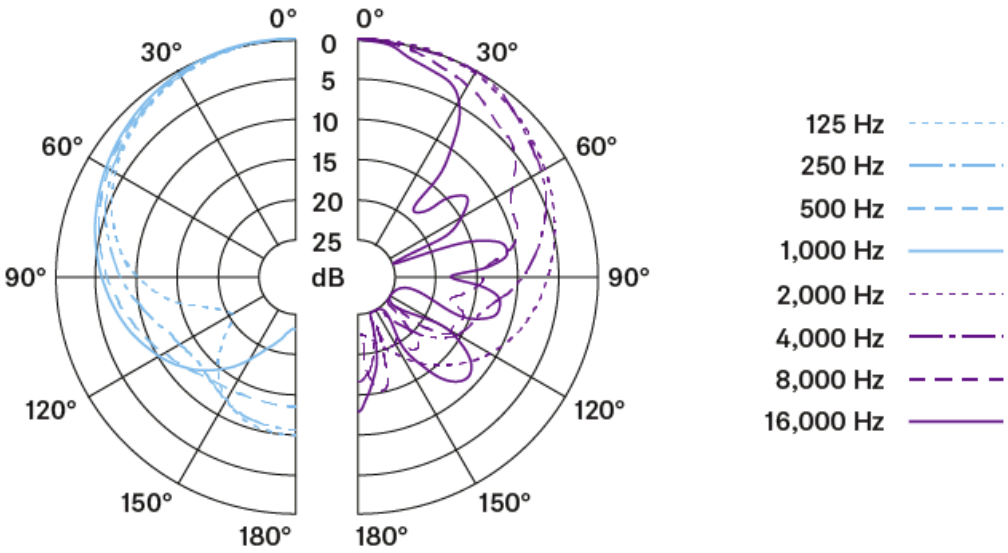
Dimensions

- Ø 41 x 63 mm

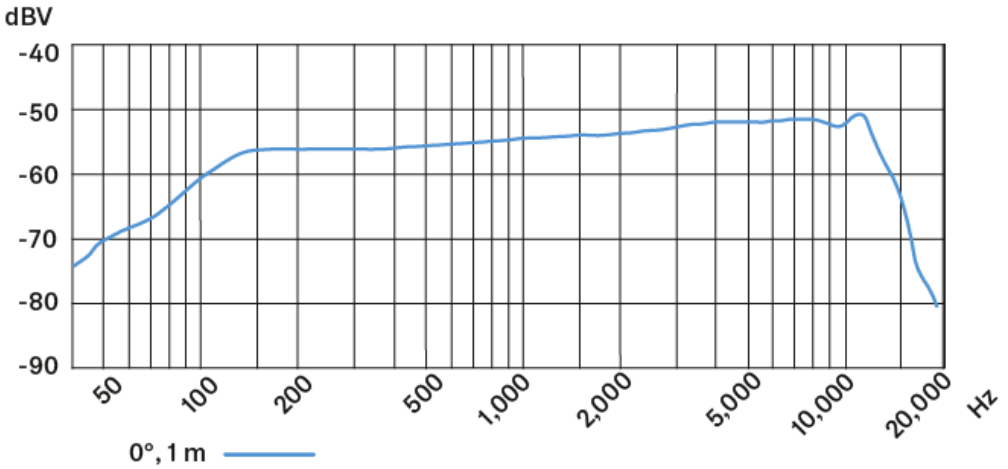
Weight

- 125 g

Polar pattern



Frequency response



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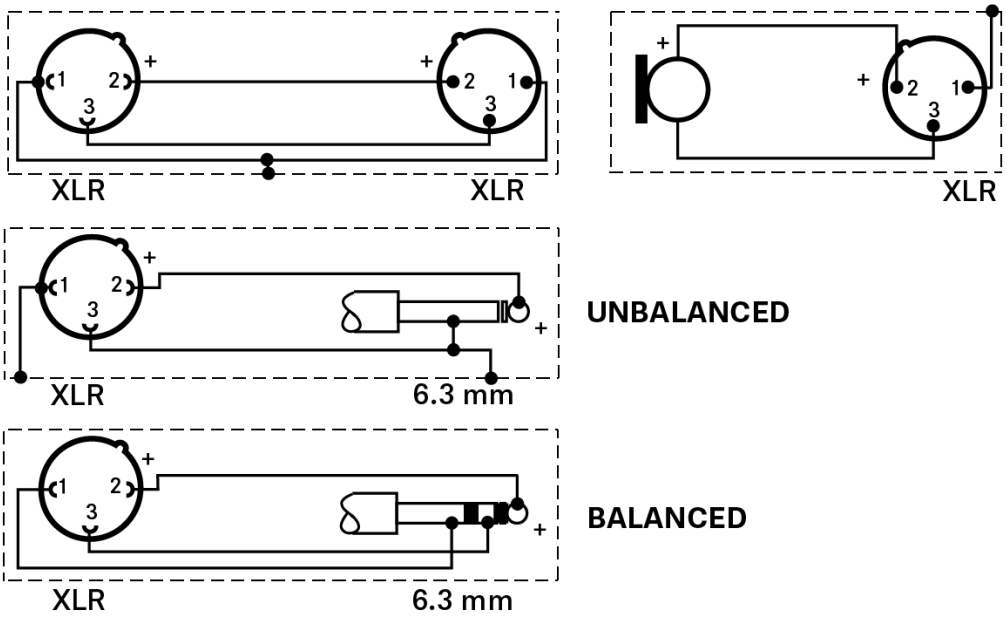


e 906

Specifications

Transducer principle

- dynamic

Frequency response

- 40 - 18,000 Hz

Pick-up pattern

- Supercardioid

Sensitivity (free field, no load)

- 2.2 mV/Pa

Nominal impedance (at 1 kHz)

- 350 Ω

Min. terminating impedance

- 1 kΩ

Connector

- XLR-3

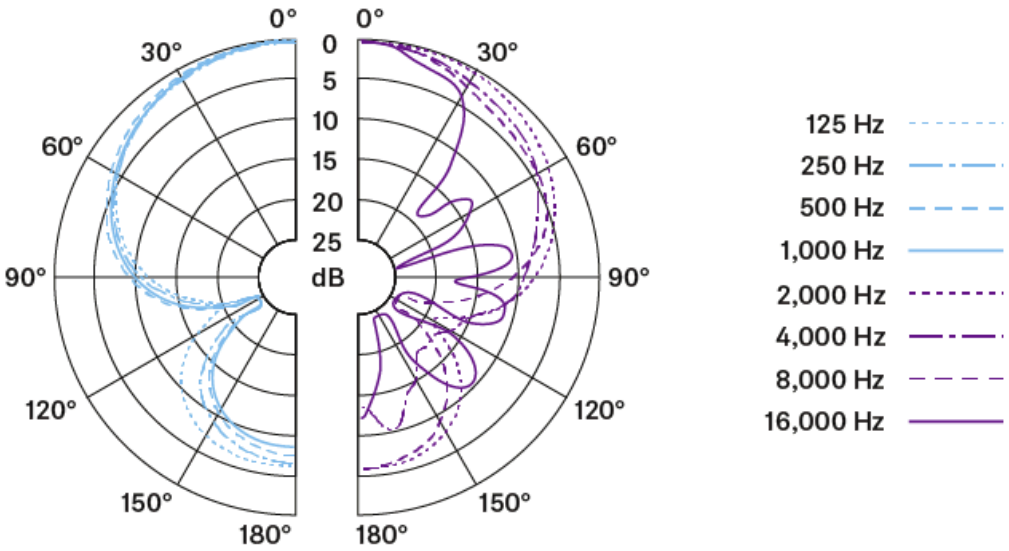
Dimensions

- 55 x 34 x 134 mm

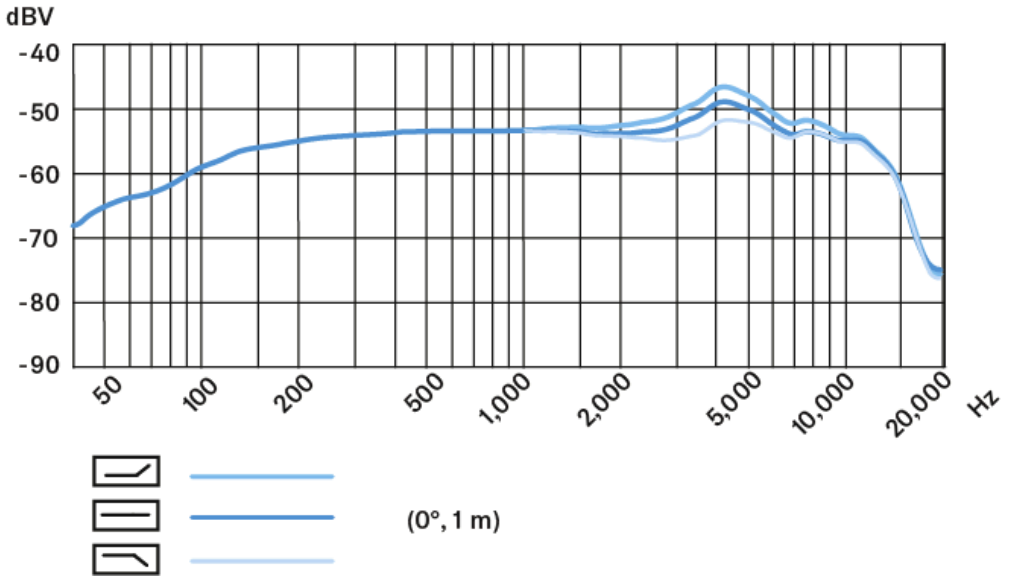
Weight

- 140 g

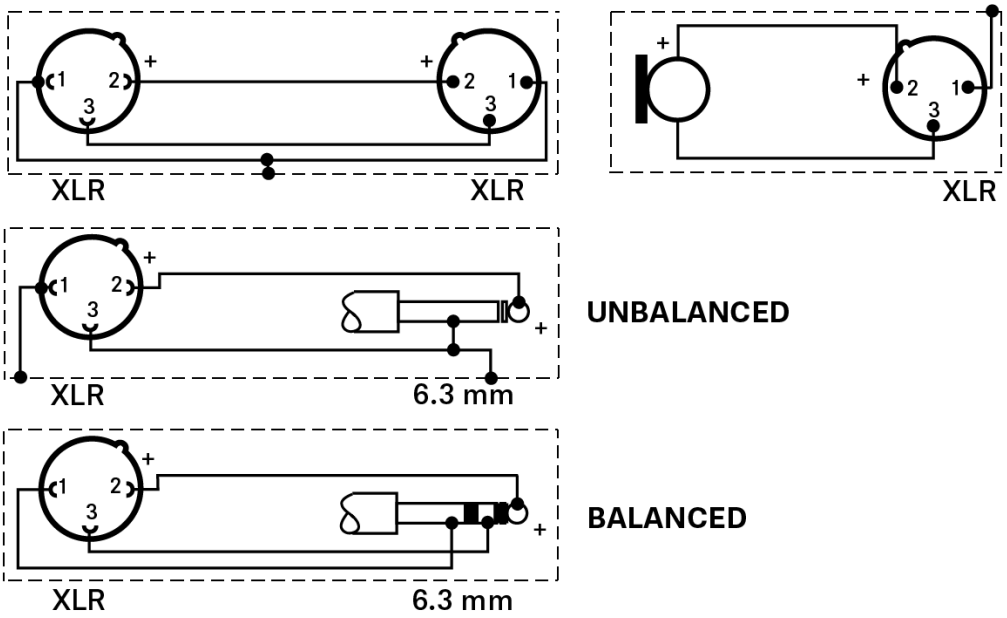
Polar pattern



Frequency response



Connector assignment



e 908

Specifications

Transducer principle

- pre-polarised condenser microphone

Frequency response

- 40 - 20,000 Hz

Pick-up pattern

- cardioid

Sensitivity (free field, at 1 kHz)

- 4.0 mV/Pa

Nominal impedance (at 1 kHz)

- 100 Ω (balanced)*

Min. terminating impedance

- 50 Ω

Max. sound pressure level

- 147 dB_{SPL} (k = 3%)

Equivalent noise level

- 30 dB (A)
- 35 dB (A)*

Phantom powering

- 12 - 48 V*

Connector

- e 908 B: XLR-3*
- 3.5 mm jack

Dimensions

- 47 x 193 mm

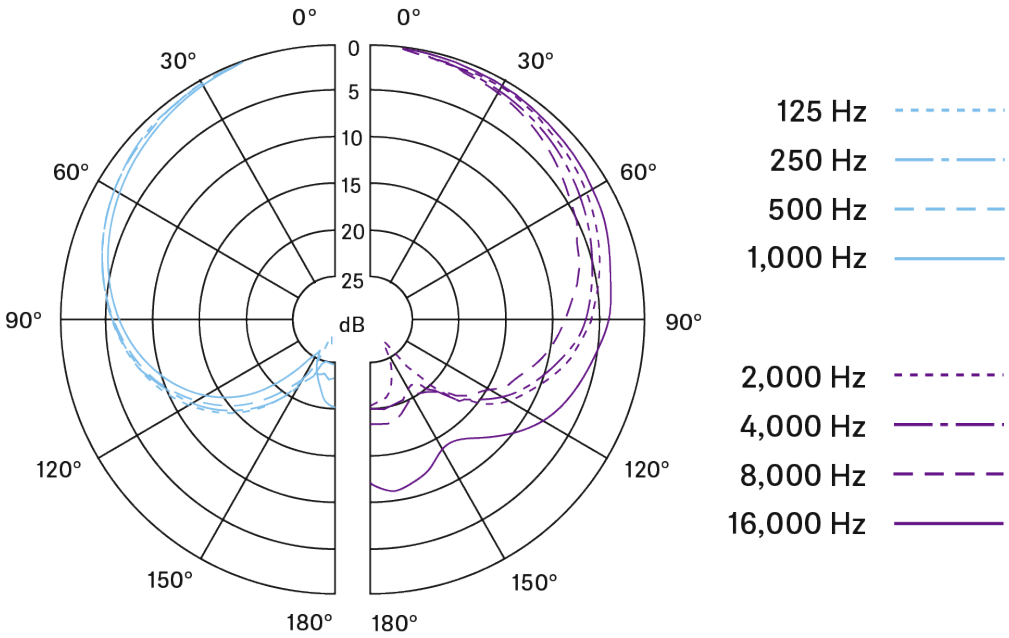
Weight

- 140 g*

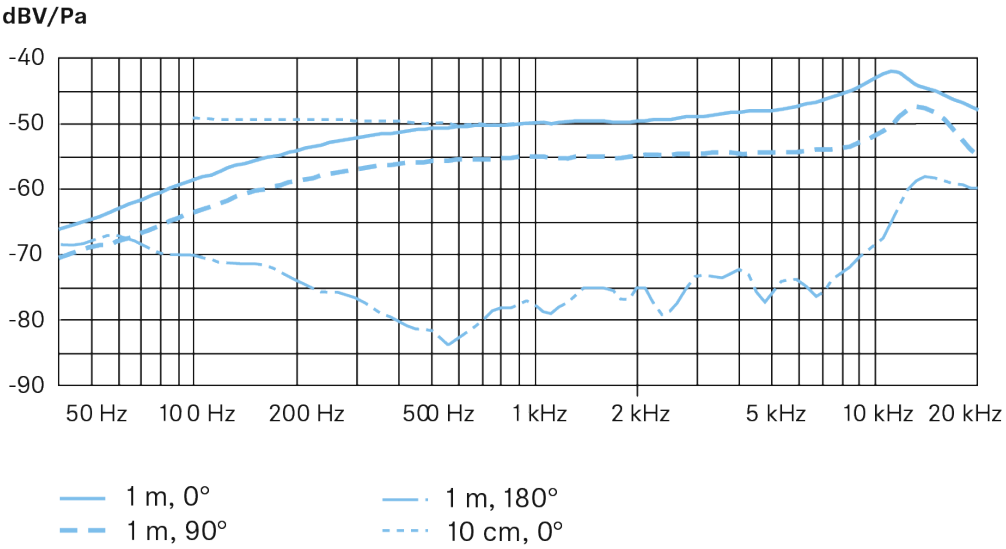
* with MZA 900 P (e 908 B)

e 908 B ew for direct connection to ew transmitters

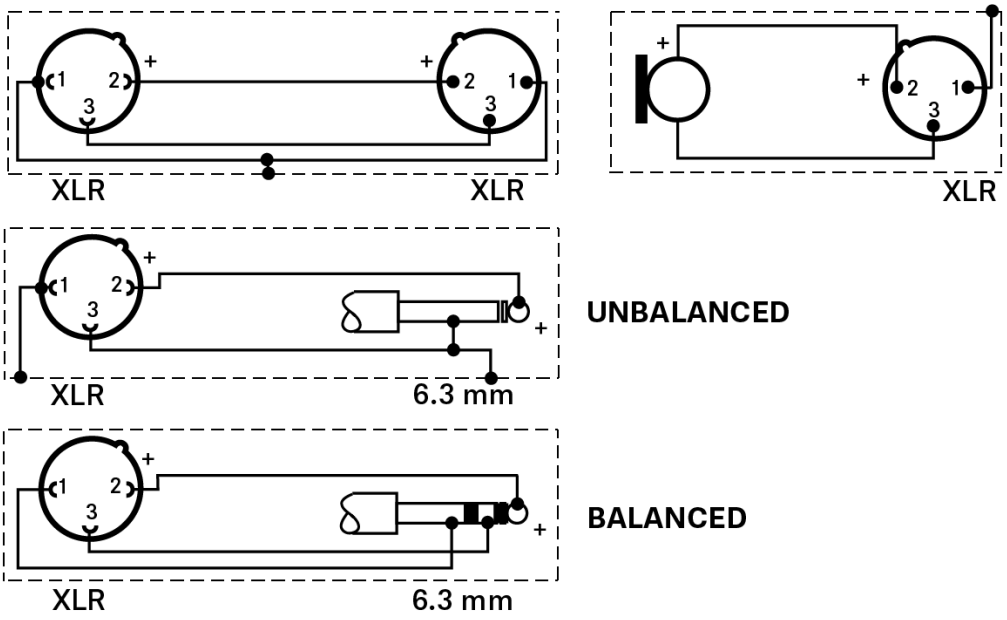
Polar pattern



Frequency response



Connector assignment



e 914

Specifications

Transducer principle

- pre-polarised condenser microphone

Frequency response

- 20 - 20,000 Hz

Pick-up pattern

- cardoid

Sensitivity (free field, no load)

- 7 mV/Pa
- with pre-attenuation: 2.3 mV/Pa / 0.7 mV/Pa

Nominal impedance (at 1 kHz)

- 100 Ω

Min. terminating impedance

- 1 kΩ

Max. sound pressure level (at 1 kHz)

- 137/147/157 dB SPL (depending on pre-attenuation)

Equivalent noise level

- A-weighted: 24 db(A)
- CIIR-weighted: 34 dB

Pre-attenuation

- 0, -10, -20 dB

Bass filter

- linear
- roll-off 130 Hz, 6 dB/Okt
- cut-off 85 Hz, 18 dB/Okt

Phantom powering

- 48 V / 2.2 mA

Connector

- XLR-3

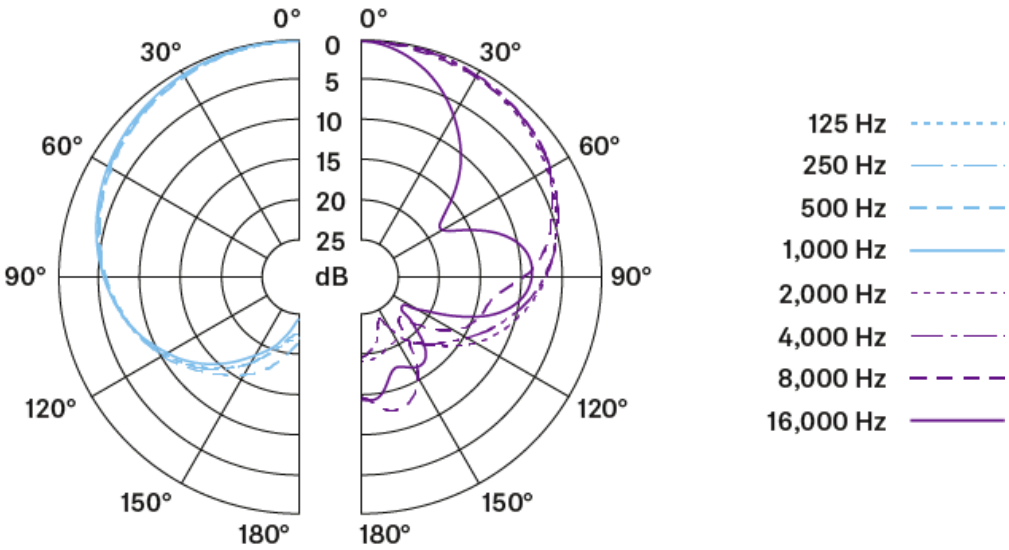
Dimensions

- Ø 24 x 157 mm

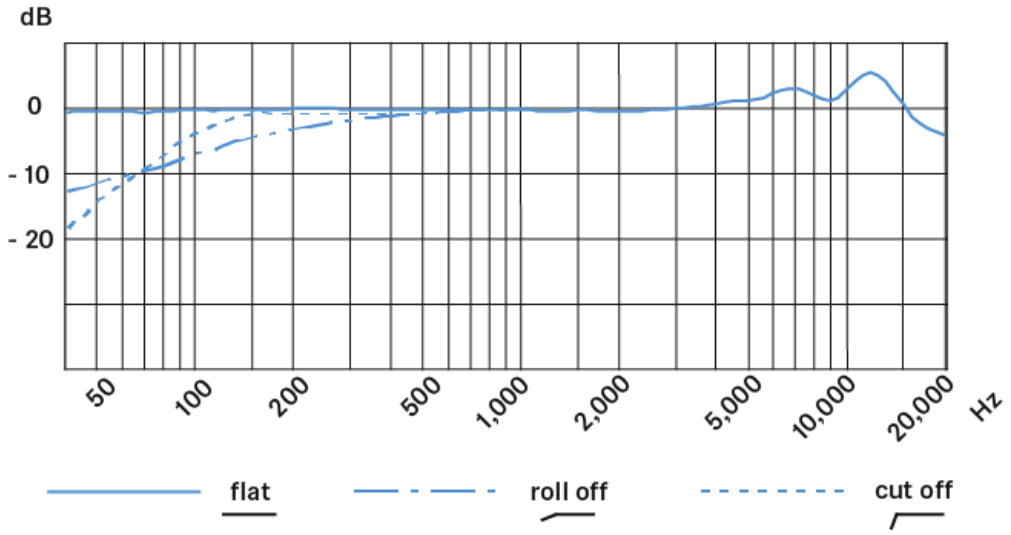
Weight

- 198 g

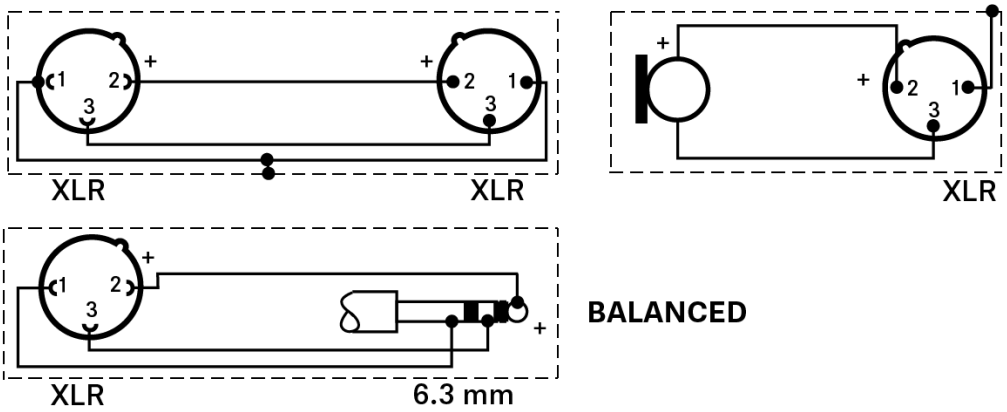
Polar pattern



Frequency response



Connector assignment



e 935

Specifications

Transducer principle

- dynamic

Frequency response

- 40 - 18,000 Hz

Pick-up pattern

- cardioid

Sensitivity (free field, no load)

- 2.8 mV/Pa

Nominal impedance (at 1 kHz)

- 350 Ω

Min. terminating impedance

- 1 kΩ

Connector

- XLR-3

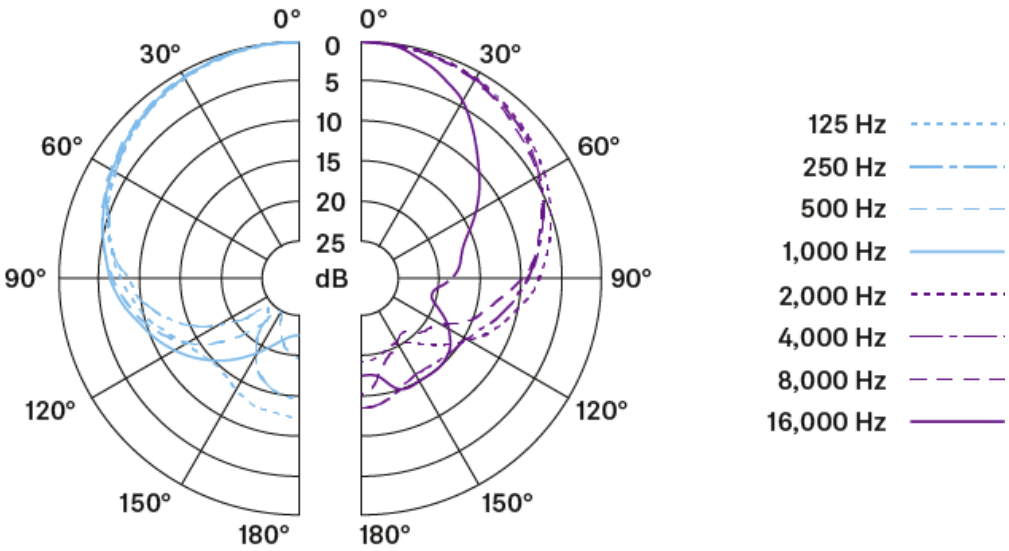
Dimensions

- Ø 47 x 151 mm

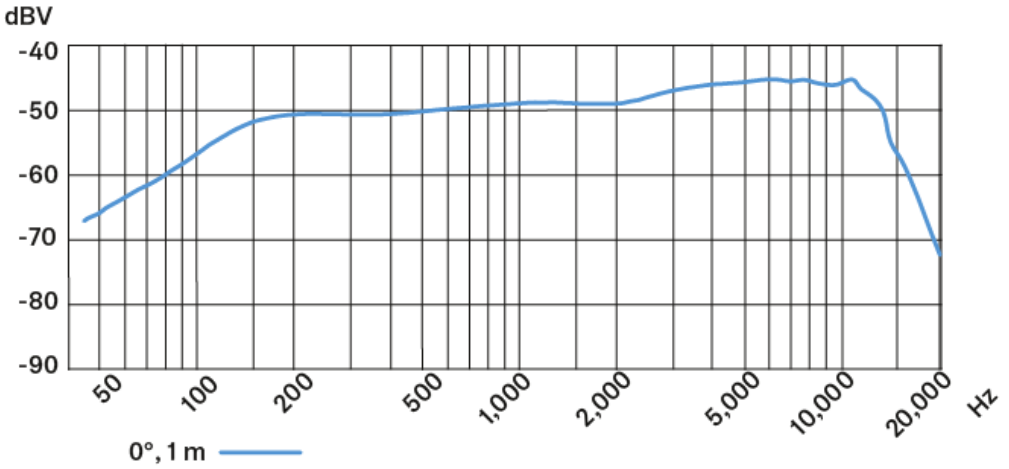
Weight

- 335 g

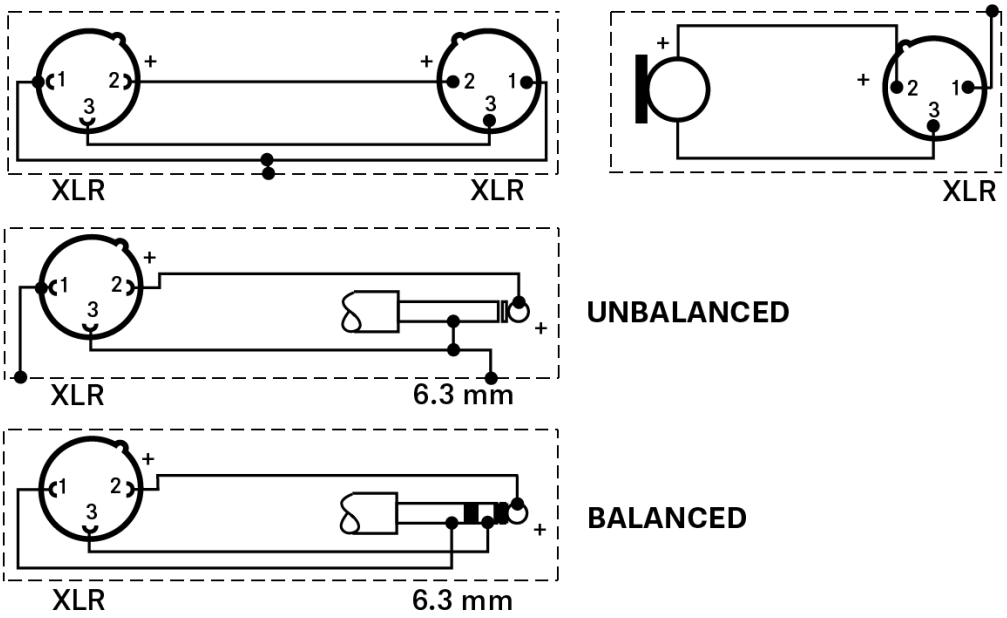
Polar pattern



Frequency response



Connector assignment



e 945

Specifications

Transducer principle

- dynamic

Frequency response

- 40 - 18,000 Hz

Pick-up pattern

- Supercardioid

Sensitivity (free field, no load)

- 2.0 mV/Pa ±3 dB

Nominal impedance (at 1 kHz)

- 350 Ω

Min. terminating impedance

- 1 kΩ

Connector

- XLR-3

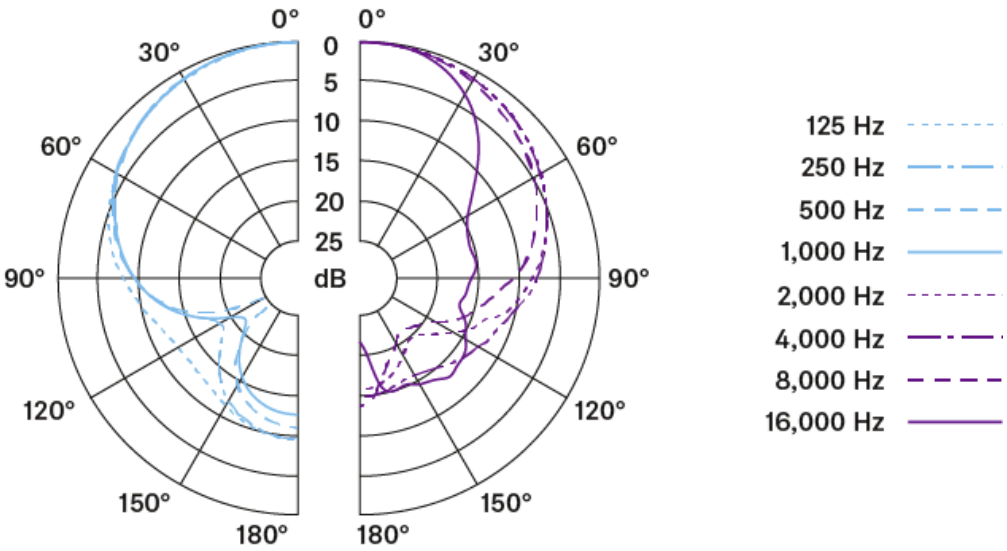
Dimensions

- Ø 47 x 186 mm

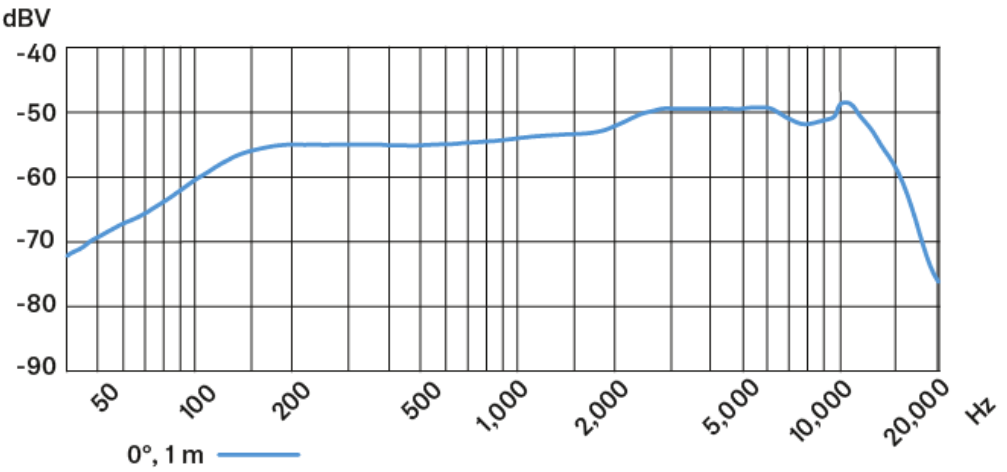
Weight

- 365 g

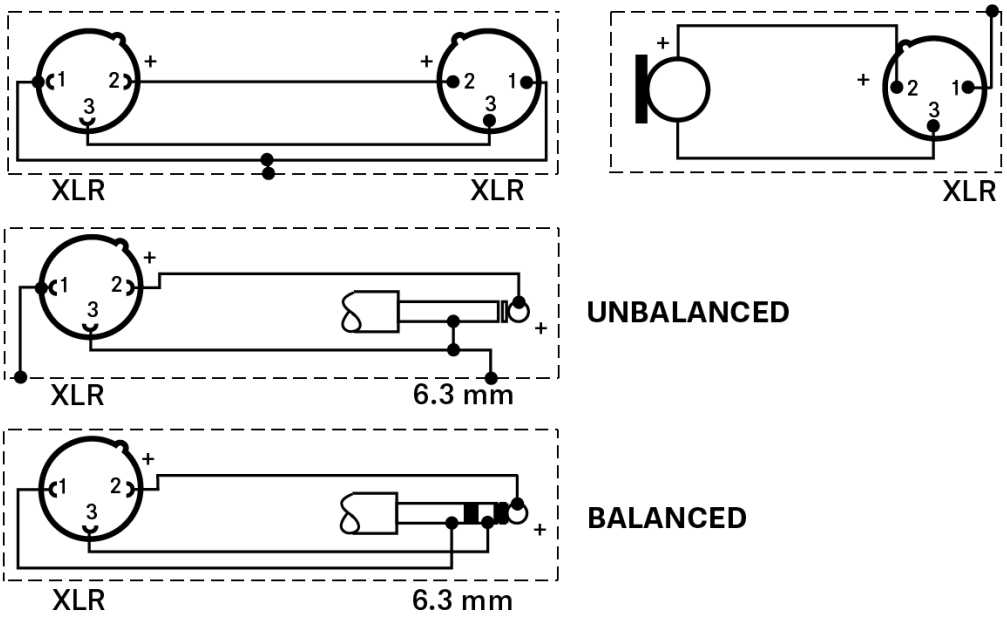
Polar pattern



Frequency response



Connector assignment



e 965

Specifications

Transducer principle

- externally polarized dual-diaphragm condenser microphone

Membran diameter

- 25.4 mm/1"

Frequency response

- 40 - 20,000 Hz

Pick-up pattern

- cardioid/supercardioid, switchable

Sensitivity (free field, no load)

- 7 mV/Pa
- with pre-attenuation: 2.3 mV/Pa

Nominal impedance (at 1 kHz)

- ca. 50 Ω

Min. terminating impedance

- 1 kΩ

Max. sound pressure level (at 1 kHz)

- 142 dB
- with pre-attenuation: 152 dB

Equivalent noise level

- 21 dB (A)

Phantom powering

- 48 V/3.5 mA

Connector

- XLR-3

Temperature range

- 0 °C to +40 °C

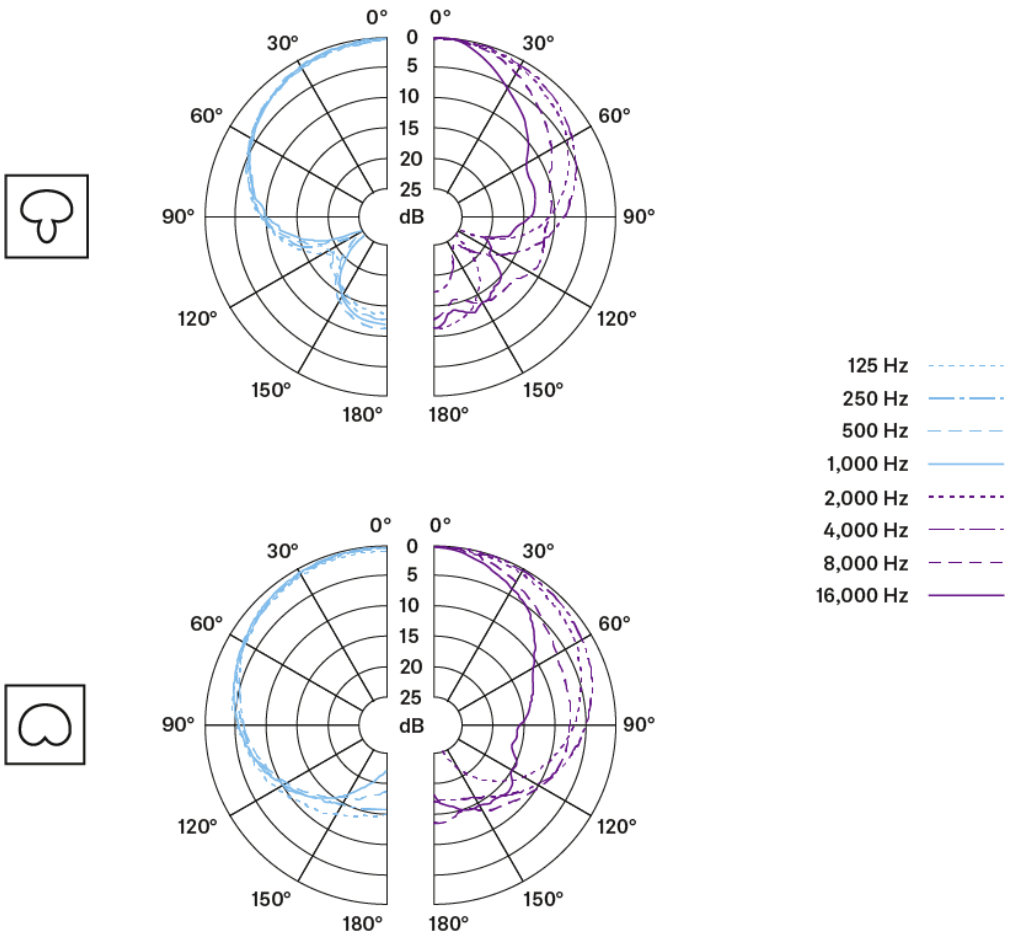
Dimensions

- Ø 48 x 199 mm

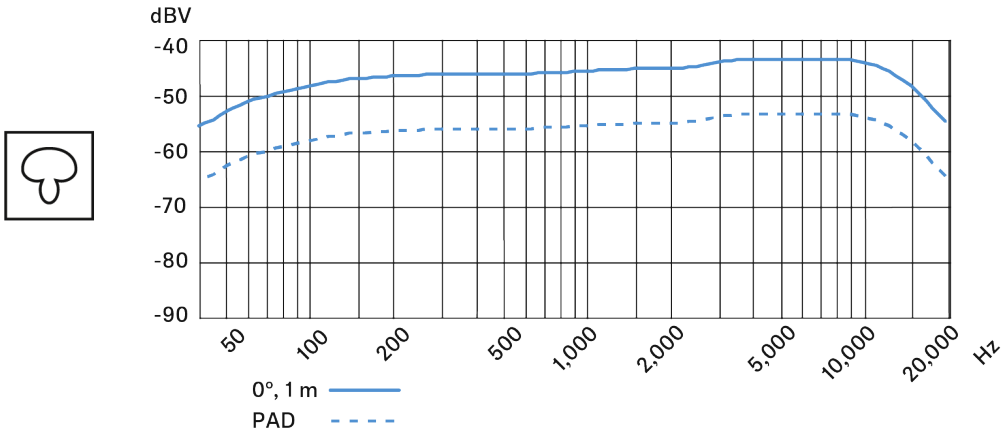
Weight

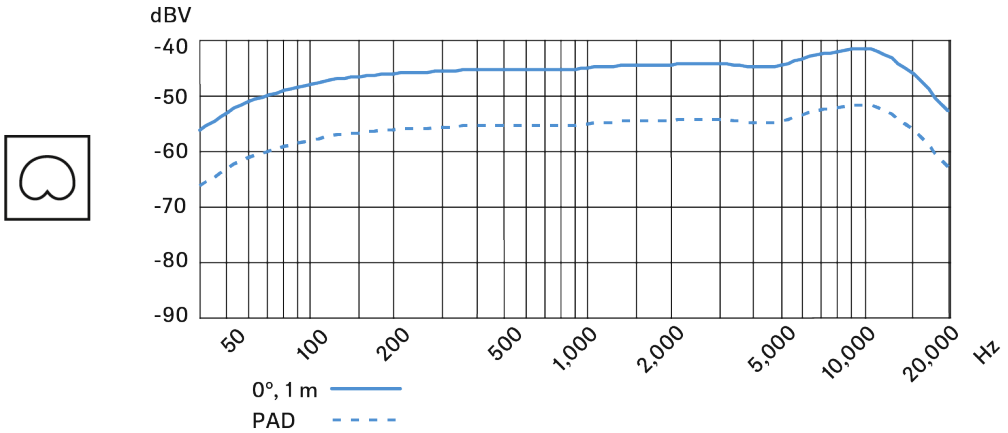
- 396 g

Polar pattern

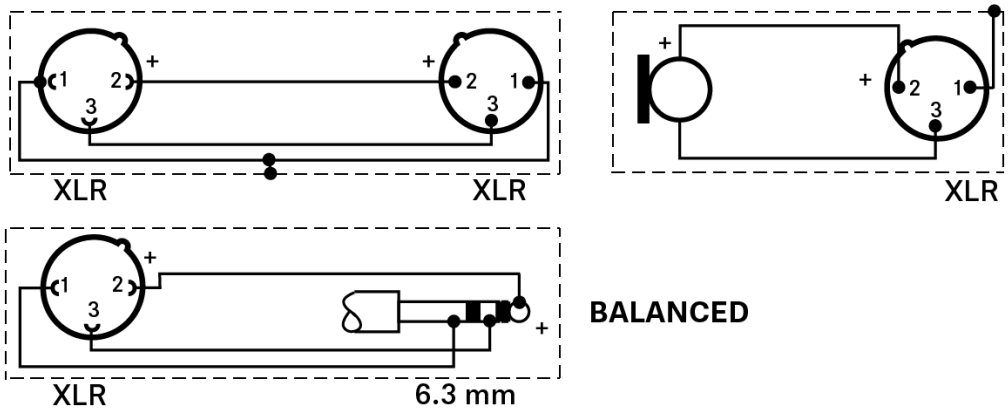


Frequency response





Connector assignment



MZA 900 P

Specifications

Frequency response

- 20 - 20,000 Hz (-1 dB)

Gain, switchable (Pre-attenuation)

- 0/-12 dB

Roll-off filter, switchable

- 125 Hz, (-3 dB), 12 dB/Okt

Max. output voltage at

- 0 dB gain: 1.8 V (P48); 0.6 V (P12)
- -12 dB gain: 0.45 V (P12 - P48)

Noise voltage at the output

- A-weighted: 3 µV (0/–12 dB)
- CIIR-weighted: 12 µV (0/–12 dB)

Output impedance

- 100 Ω

Min. load impedance at

- 0 dB pre-attenuation: 5 kΩ (P12 - P48)
- -12 dB pre-attenuation: 2 kΩ (P12 - P48)

Power supply

- P12 - P48
- 10 - 52 V
- 2.6 - 2.8 mA

Connector

- XLR-3 M

Input socket

- 3.5 mm jack socket, lockable

Temperature range

- -20 °C to +60 °C

Dimensions

- Ø 19/22 x 100 mm

Weight

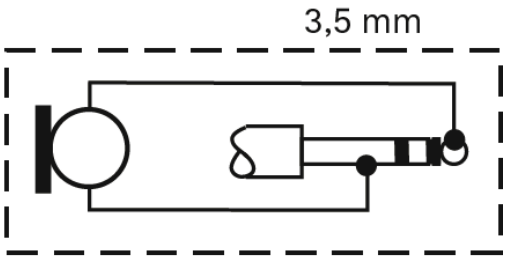
- 60 g

Humidity range

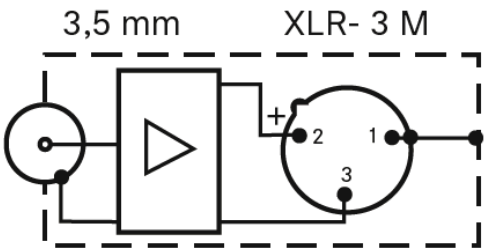
- < 95 % r. F.

Connector assignment

e 908



MZA 900 P



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